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Original Articles.

THE USE OF THE GALL-BLADDER TO RESTORE A PROLAPSED LIVER.*

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OMAHA, NEB.

Conditions concerning a descent or displacement of the abdominal organs have all too often escaped notice and are not sufficiently considered in the management and treatment of the disturbed secretory and digestive functions. That every organ should occupy its normal location to perform its proper function is self-evident; and that any deviation from the normal position is at the expense of its real office, is easily understood. Our attention to-day will be directed to one organ, the liver. That this organ is sometimes displaced downward to a considerable degree will be shown by the two following cases. That there is usually modified function and a well-defined clinical picture belonging to this change of position will also be shown.

CASE 1.—Mrs. S., aged 41, housewife, entered St. Joseph's Hospital, June, 1896. She had for three years suffered from paroxysms of severe pain located in the right hepatic region. These pains, always sudden in onset, sometimes subsided in the course of one or two hours, but occasionally continued until relieved by opiates. Whether they were relieved spontaneously or by anodynes, they were always succeeded by nausea and an aversion for food lasting from two days to a week. During the intervals, she had a dragging pain in the right hypochondriac region. A year previously she had had a moderate degree of jaundice. Otherwise her history was negative.

Status præsens: On examination, she was found apparently older than her real age, fairly well nourished. Her abdomen was distended, tympanitic, the abdominal walls were pendulous, soft and flabby, covered with numerous striæ, the result of child-bearing. On palpation, pain on pressure was elicited over the region of the gall-bladder, but no enlargement of that viscus could be made out. A movable lump was found between the right costal arch and the iliac crest, which proved to be the right kidney. The diagnosis was biliary calculi in the gall-bladder and movable right kidney. Cholecystotomy and nephrorrhaphy were recommended and agreed to by the patient.

Operation: After the usual preliminary preparations, a vertical incision was made, beginning at a point over the median end of the ninth rib and extending downward four inches. On entering the abdominal cavity, the lower margin of the liver was three finger-breadths below the costal arch. The liver could very easily be elevated to its normal position, but it descended very slowly when pressure upwards was released. In appearance it was normal. The gall-bladder was easily found and several calculi could be felt through its walls. The displaced and movable kidney could be made out. The liver could be held in place by little effort, particularly when an ordinary amount of traction was made on the gall-bladder, so the question presented itself, why not use the gall-bladder as a suspensory ligament? Accordingly, it was sutured in the uppermost part of the wound, snugly against the costal arch, the sutures passing through the gall-bladder wall, the parietal peritoneum and muscles. Before closing the peritoneal cavity, an exploration was made for the movable kidney, but it had receded to its normal position and could not be displaced. The peritoneum was then closed, the remaining wound sutured in the usual way save to allow for opening the bladder. This was done and seven calculi were removed. A long drainage tube was introduced and the wound was then dressed by an antiseptic hygroscopic pad. The drainage tube was removed in one week. The wound closed at the end of four weeks. The patient was directed to wear a snugly fitting abdominal band. Subsequently, several examinations were made. On percussion, the liver had remained in its normal position and the dragging pain had disappeared. No displacement of the kidney could be made out although she assumed several positions, straining in various ways. It was evident that the descended kidney was dependent on the descent of the liver. Unfortunately, in this case, it was not ascertained whether there was associated a downward displacement of the stomach and colon.

The foregoing experience has been the means of a more thorough examination, particularly as to the position of the liver and other abdominal viscera, in all our cases of affections involving the gall tracts. It is a fault to which we must all plead guilty more or less, that of ascribing all symptoms in a given case to the chief pathological factor and overlooking other deviations from the normal equally as important and often contributing a large share to the symptomatology. Prolapsed abdominal viscera are frequently observed and their rectification in only a few instances has been solved. Occasionally only one organ may have descended, often more than one, as in the foregoing case. Such a state of affairs is further illustrated in the following instance:

CASE 2.—M. A., aged 65, farmer, gave the following history: He had always been well, except for the diseases incident to childhood and an old right femoral hernia, until three years ago, when he had a sudden attack of severe pain in the right hypochondriac region, which was designated gallstone colic and which subsided in an hour after the hypodermic administration of morphin. There was no jaundice with that attack. The pain has recurred at irregular intervals to the present time. It has always occurred in the same locality and often was most excruciating, being invariably associated with more or less tenderness on pressure along the border of the right costal arch. Nausea and vomiting were often present during and after an attack. During the last year, he began to experience a dragging feeling in the right hepatic region during the periods of intermission. His hernia had become irreducible and exceedingly painful, which was the cause of his seeking the hospital. He was admitted to the M. E. Hospital in January, 1899, and we found the following conditions.

* Read before the Western Surgical and Gynecological Association, at Chicago, Dec. 18-19, 1901.

Status præsens: He was sparely built, of medium height and appeared much older than his actual age. He appeared intensely jaundiced. His pulse was 80, temperature 99. His abdomen was distended. He had a right interstitial femoral hernia. A sensitive, rounded, hen-egg sized swelling could be felt about four inches below the costal arch. On percussion, the hepatic dulness began at the lower margin of the seventh rib and extended downward fully three inches below the costal margin. On palpation, the lower margin of the liver could be plainly felt at the lower boundary of dulness. The stomach was then distended with air through a stomach tube; its lower curvature reached to the umbilicus, but it did not seem dilated. The diagnosis was irreducible interstitial femoral hernia, biliary calculi in the gall-bladder and common duct, with a prolapsed liver. An immediate operation for the hernia and subsequent surgical intervention for the cure of the biliary obstruction was readily consented to on the part of the patient.

Operation: On account of his enfeebled condition, it was considered inadvisable to do more than to immediately relieve the incarcerated hernia. The hernial tumor had increased in size until, in its upward and outward direction, it reached to the iliac spine. Toward its median direction, it extended to the pubic spine. Through a long oblique incision the hernial sac was easily enucleated and its contents were readily reduced after the hernial opening had been enlarged. The neck of the sac was transfixed with catgut and the sac was cut away. The margins of the hernial opening were approximated with silver sutures and the skin with a subcuticular silkworm gut. The healing process was uneventful. Two weeks later the second operation was undertaken.

On opening the abdomen by a vertical incision, the liver was seen to extend about three inches below the costal margin. The distended gall-bladder appeared below the hepatic border. The liver was easily pushed upward to its normal position. The right index finger was introduced into the foramen of Winslow. A calculus was found to be lodged in the common bile duct. This calculus, in its duct, was raised forward, it was easily laid bare and after the introduction of four sutures in the duct wall, the calculus was removed through a longitudinal incision. The wound was then closed by tying the previously applied sutures. The gall-bladder was then fastened in the uppermost part of the wound, snugly against the costal arch. After placing a rubber drain, with one end reaching to the common duct over the line of sutures, the other end projecting from the lower end of the abdominal wound, the peritoneum was closed, allowing the gall-bladder fundus to project at its point of attachment. The gall-bladder was opened and four calculi were removed. A rubber drain was placed in the bladder and the abdominal parietes were approximated between the two drains. The healing process was uneventful, the lower drain being removed in five days, the upper one in ten days. The liver had retained its normal location, as was indicated by the normally located area of dulness. The stomach was apparently in its normal location, as was shown by air inflation through a tube. He was discharged, wearing a snugly fitting abdominal band. The liver has remained in its normal position, as has been ascertained by a recent examination and by a disappearance of all discomfort.

As we review the foregoing cases several propositions present themselves for consideration: 1. What is the cause of hepatoptosis? 2. Does the liver descend alone or are other abdominal organs involved? 3. Is the gall-bladder, as utilized in the preceding cases, an efficient support?

In this connection we will exclude such displacements as are brought about by neoplasms or by conditions that augment the size of the organ permanently. It is intended that our discussions will be limited to displacements where the liver itself is free from histological changes and where its modified function is dependent on the descent of the organ.

Let us at the outset have a clear understanding of the normal supports of the organ. "We find that the normal position of the liver is dependent chiefly on its intimate connection with the vena cava inferior. This great vessel, passing upward to the heart, is closely adherent to the back wall of the abdomen, is deeply lodged for some inches of its upper portion in the substance of the liver and receives from this viscus the few great and many small hepatic veins. The support afforded by the underlying hollow viscera—the stomach and bowels—is not to be ignored. Usually these are occupied to a considerable extent by gas and thus act as a sort of air cushion upon which their bulky associate can repose. The fibrous cord, which results from the atrophy of the umbilical vein of intrauterine life and is known as the round ligament of the liver, does its share in holding up the organ. Its upper part is firmly fastened in the umbilical fissure, from the front end of which it passes down, close to the anterior abdominal wall, enclosed in the free edge of the falciform ligament and terminates at the navel, with the cicatricial tissue of which its free end is fused. Finally, there are four ligaments formed by folds of peritoneum: the superior, formed by the serous tunic; the suspensory, because the liver seems to hang from it; the broad and the falciform."—Gerrish.

"The force by which the liver is retained within the arching dome of the diaphragm is a considerable one. Luschka compares the intimate contact of the two curved arches of the diaphragm and liver to a great ball and socket joint, held together by atmospheric pressure. The path that the liver must describe when it descends from its normal position is the same it took when it rose from its fetal situation. In its descent the liver goes through a peculiar axis rotation. The direction of this rotation is toward the anterior and inner portion of the abdomen. The duodenum, pylorus and hepatic flexure of the colon, will, of necessity, for anatomical reasons, have to descend with it. The posterior lower edge of the liver rises during this axial rotation and becomes superimposed on the upper end of the kidney; if there has been a predisposition to abnormal motility or loose attachment of the kidney, it will become completely dislocated."[1] The abdominal muscles are also important factors in maintaining the normal position of the liver as well as the other abdominal contents.

It is clear that we must consider these several factors: 1, the intimate contact of the two arched surfaces between the liver and diaphragm; 2, the suspensory ligaments; 3, the intimate relations between the vena cava inferior and the liver; 4, the hollow viscera; 5, the abdominal walls.

The suspensory ligaments of the liver are not adequate in themselves to support the organ. Nor can the hollow viscera be depended upon; nor the attraction between the well-fitting surfaces of the liver and diaphragm; nor the round ligament; nor the attachment to the vena cava; nor the abdominal walls. It is evident that each one and all of these supports are necessary. Any defect in one or more of them invites a displacement. Should, for example, the abdominal walls lose their tenacity by prolonged over-distension due to constipation, or by repeated pregnancies, the abdominal viscera must, of necessity, become displaced, gradually involving, to a greater or less degree, the entire abdominal contents, followed eventually by an elongation of the hepatic ligaments.

According to Glenard, the hepatic flexure of the colon

1. Hemmeter, Diseases of the Stomach, p. 705.

descends, followed by a displacement of the transverse colon, to a point where it is connected with the pyloric end of the stomach by the gastro-colic ligament; the colon becomes kinked and fecal stagnation results. When the colon has descended, the remaining viscera follow. The stomach, liver and kidneys descend in their turn. Accordingly, we have a secondary hepatic displacement, dependent primarily on a descent of the hollow viscera.

A primary displacement of the liver may be brought about, first by a trauma, forcibly displacing the organ downwards and injuring its ligamentous supports; second, by a prolonged increase in weight of the liver, due to venous or biliary obstruction.

Confining our observations to the cases herein detailed, we found several conditions common to both. The abdominal walls were relaxed. There was more or less gaseous distension. The bowels were more or less constipated. All these conditions favor enteroptosis. While in our first case we failed to establish displacements aside from the liver and kidneys simply because of lack of sufficient examination, yet gastroptosis and enteroptosis must have been present, because it is inconceivable that a liver could be so prolapsed as that was without crowding down organs located beneath it. In our second case we established the existence of a prolapsed stomach and intestines; there existed a biliary obstruction due to a location of a calculus in the common duct, producing almost complete biliary obstruction. As a consequence the weight of the liver was increased, a condition which, no doubt, contributed to its descent.

Now the query arises, Did the biliary calculi play a rôle as an etiological factor in the prolapsus, or did they play only an incidental rôle? Did the prolapsus cause the formation of the calculi? These are questions that are not included in the scope of this paper and do not concern us at this time.

Confining ourselves to our main propositions, our last one can be briefly answered. In both our cases the liver has remained in its normal position, as has been ascertained by recent examinations. The area of liver dulness has remained normal, and the dragging sensation in the right side, complained of by both patients, has disappeared.

The use of the gall-bladder to suspend the descended liver appears practical. But to make it effective the abdominal walls should be assisted for a considerable period by an abdominal band. If the relaxed abdominal walls are not assisted to overcome the enteroptosis, the gall-bladder attachment would, no doubt, become elongated or entirely detached, favoring recurrence. In attaching the gall-bladder as we did, we simply lifted the outer edge of the liver upward and outward so as to overcome the rotation downward and inward. In conclusion we may say:

1. The cause of hepatoptosis consists in a modification of one or more of its normal supports, or in an increase in the size and weight of the liver.

2. It is impossible for the liver to descend without producing a descent of the hollow abdominal viscera.

3. The utilization of the gall-bladder as a suspensory ligament, to maintain and hold in its normal position a prolapsed liver, together with certain other abdominal organs, seems practical.

Phototherapy in Spain.—The Queen Regent has appropriated 10,000 pesetas for an Institute of Phototherapy at Madrid.

END-TO-END APPROXIMATION OF THE BROAD LIGAMENTS AND OTHER POINTS OF TECHNIQUE IN ABDOMINAL HYSTERO-MYOMECTOMY.

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CHICAGO.

Abdominal hystero-myomectomy may be, supravaginal, in which the tumor, corpus uteri and supravaginal portion of the cervix are removed, or, complete, in which the tumor and entire uterus are removed. The two operations will be considered separately.

SUPRAVAGINAL HYSTERO-MYOMECTOMY.

The usual operation is to secure the ovarian and uterine arteries by means of strong catgut ligatures and after the removal of the tumor, corpus uteri and supravaginal portion of the cervix, to close the uterine stump by means of a continuous suture running from side to side and then to close the wound in the broad ligaments by means of another continuous suture also running in the same direction (Fig. 1). This method is open to the following objections: 1. The severed broad ligaments retract to the sides of the pelvis where they can no longer give adequate support to the bladder, vagina and the rectum, and where they consequently permit

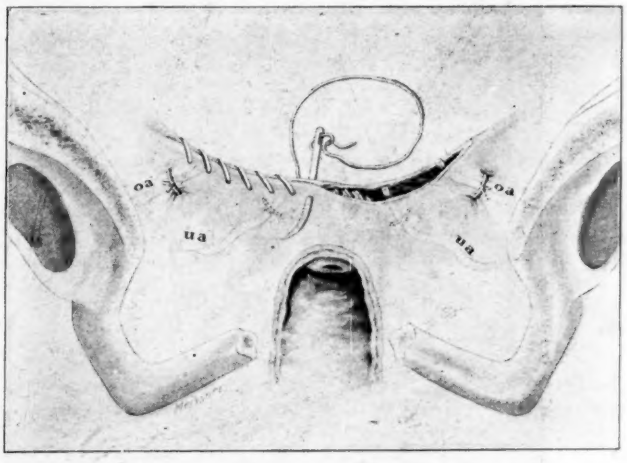

Fig. 1.—*Supravaginal hystero-myomectomy.* The ovarian and uterine arteries have been secured by means of strong catgut ligatures; the uterine stump has been closed by a continuous suture running from side to side and the wound in the broad ligaments is being whipped together by a continuous catgut suture running in the same direction. The ligatures on the uterine arteries are covered in by peritoneum; those on the ovarian arteries are not so covered.

exaggerated descent of the pelvic floor with disabling and permanent cystocele and rectocele. 2. The rectum and bladder are brought into close relations with only a thin wall between them so that the possibility of infection from one to the other is increased. 3. In many cases the bladder is drawn over the uterine stump in order to cover it and this may give rise to mechanical irritation of the bladder. The author has attempted to overcome the difficulties above mentioned by closing the uterine stump in the antero-posterior direction and the broad ligaments in the same direction by end-to-end approximation. This method will be set forth under the following description of technique:

Technique of Supravaginal Hystero-myomectomy.—The steps of the operation are these:

A. Abdominal incision.

B. Delivery of the tumor through the abdominal wound.

C. Ligature of the ovarian and uterine arteries and

removal of the tumor together with the corpus and supravaginal portion of the cervix uteri.

D. Toilet of the peritoneum.

E. Closure of the abdominal wound.

A. In case of a large tumor the abdominal incision should be made nearer the umbilicus than the pubes, to avoid the bladder, which by the growth of the tumor is not infrequently drawn up out of the pelvis. The incision, first exploratory—that is, large enough to admit one or two fingers—may, if the operation is to continue, be sufficiently enlarged to permit the delivery of the tumor.

B. The delivery of the tumor through the abdominal wound is sometimes made by pressure on the abdominal walls around the incision, so as to squeeze it out as one would squeeze pus out after opening an abscess. Usually, however, the tumor is delivered by traction with the hands or with heavy vulsellum forceps. In many cases the tumor is so firmly fixed in the pelvis that it can not be brought through the abdominal wound until

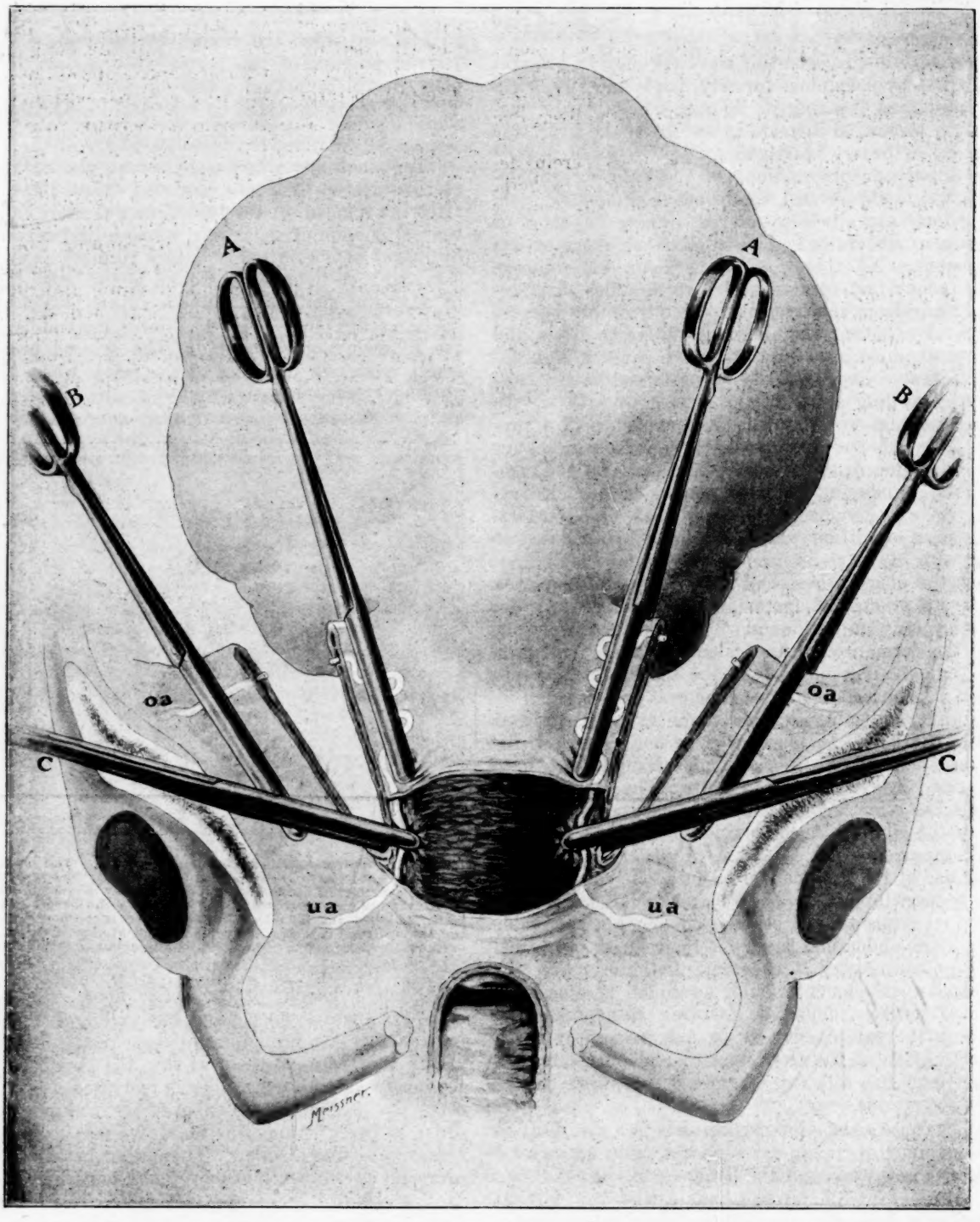

Fig. 2.—*Supravaginal hystero-myomectomy.* Forceps B B clamp the ovarian artery as it passes inward through the broad ligament toward the uterus. Forceps A A clamp the ligament close to the uterus and prevent reflex hemorrhage from the utero-ovarian anastomosis at the uterine end of the broad ligament. On either side the broad ligament has been divided by means of scissors between forceps A and B. The peritoneal investment of the uterus all around the cervix has been divided just above the level of the bladder attachment. The circumuterine peritoneum together with the attached bladder has been stripped down toward the vaginal portion of the cervix to the region of the uterine arteries. The uterine arteries have been clamped by means of forceps C C.

after some of the ligatures have been placed around the arteries and the mass partially severed from the broad ligaments. If the abdominal incision has been very long, and the intestines are much inclined to protrude through the wound, they may, as soon as the tumor has been brought through, be held back by large flat gauze pads, facilitated by the use of long-bladed forceps to secure temporary hemostasis of the uterine and ovarian arteries while the mass is being removed. This use of the forceps will enable the operator to get the tumor rapidly out of the way and to complete the operation with great speed and during the operation to avoid hemorrhage.

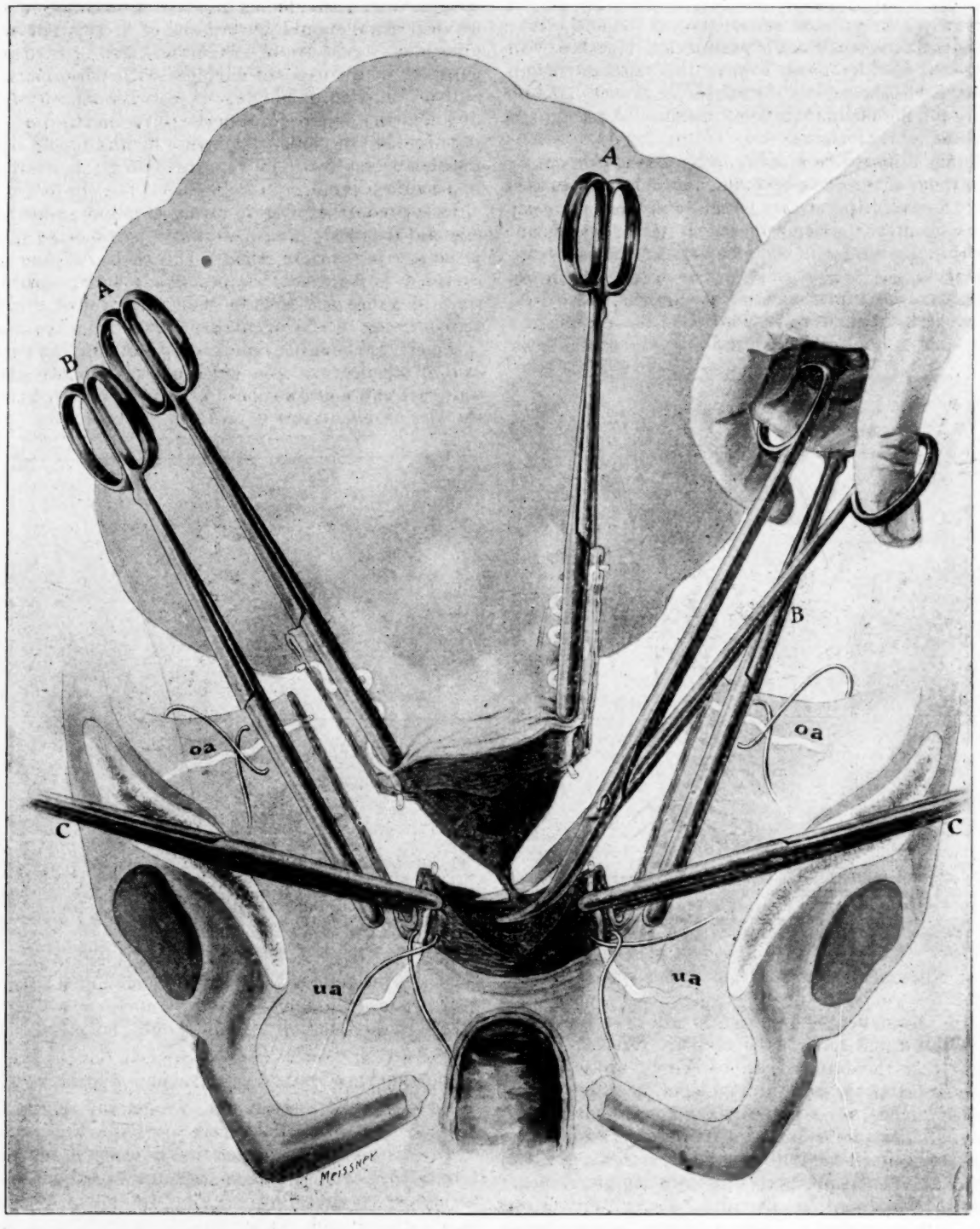

Fig. 3.—***Supravaginal hystero-myomectomy.*** **Forceps A A, B B and C C in place as shown in Fig. 2; ligatures for permanent hemostasis of the uterine and ovarian arteries in place, but not tied. Uterus being removed by scissors in such a way that the uterine stump may be sutured in a line from before backward instead of from side to side.**

or by suture of the upper part of the wound. It is clearly important to prevent protrusion of the intestines and thereby to lessen exposure of the peritoneum.

C. In a majority of all cases of hystero-myomectomy, whether complete or incomplete, the operation may be

Figures 2 and 3 show the forceps in place, AA and BB securing the ovarian and CC securing the uterine arteries. The steps of this part of the operation are shown in Figs. 2 to 5 and are:

1. Clamp the arteries as shown in the diagrams: for-

ceps BB shut off the ovarian artery as it passes inward through the broad ligament toward the uterus; forceps AA prevent reflex hemorrhage from the utero-ovarian anastomosis at the uterine end of the broad ligament.

2. Divide the broad ligaments by means of scissors.

3. Divide the peritoneal investment of the uterus all around the cervix just above the bladder attachment; this is best done by lightly cutting around the uterus with a scalpel or pointed scissors.

4. Strip the circumuterine peritoneum together with the attached bladder down toward the vaginal portion of the cervix to the region of the uterine arteries. While stripping off the bladder its relations may be recognized by a sound in that viscus.

5. Clamp the uterine arteries by means of forceps or ligature them at once; in applying the ligatures, care is necessary to avoid the ureters which sometimes run very close to the uterus. Some operators take the precaution to have a catheter in each ureter as a guide during the operation.

6. Remove the tumor and all the uterus except the vaginal portion of the cervix by a wedge-shaped incision so directed that the uterine stump may be sutured in a

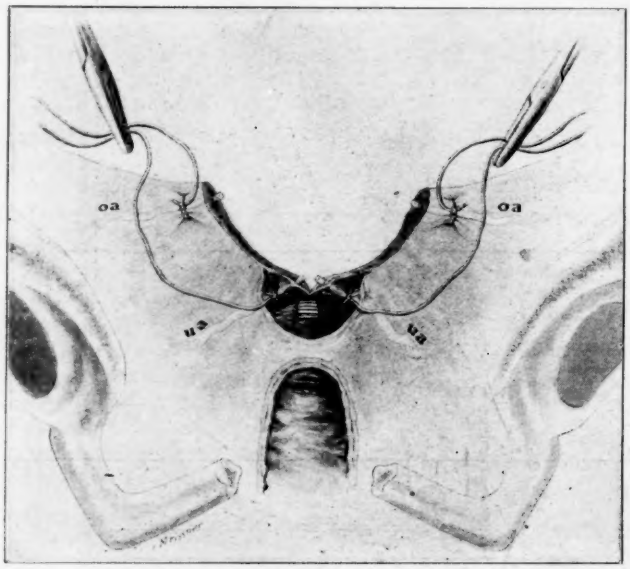

Fig. 4.—*Supravaginal hystero-myomectomy.* Ovarian arteries o a, o a, and uterine arteries u a, u a, secured by the ligatures which were shown in place, but not tied in Fig. 3. One free end of each of these ligatures is cut short and the others are held in pressure forceps. Uterine stump closed by continuous suture in antero-posterior direction.

line from before backward, not from side to side (Fig. 3).

7. Place permanent ligatures on the ovarian and uterine arteries and remove the pressure forceps. It is important that the forceps be loosened by an assistant while the ligatures are being drawn tight, because if tied before the forceps are removed dangerous hemorrhage may result. The uterine arteries are located sometimes by sight, sometimes by touch and are accordingly secured by ligature, isolated or *en masse*. In some cases the tumor so fills the pelvis that the forceps for want of room can not be applied. Then, a rubber ligature having been thrown around the cervix for temporary hemostasis, the tumor may be enucleated and the size of the mass so reduced that the forceps may be applied. As the incision is carried down through the broad ligament on each side, additional forceps, if needed to control hemorrhage, may be used until the entire mass—tumor, corpus uteri, and supravaginal portion of the cervix—has been removed, then permanent ligatures on the ovarian and uterine arteries may be substituted for the forceps.

D. The toilet of the peritoneum consists of the following steps: 1, ligature of any bleeding points; 2, cauterization of the cervical canal with 95 per cent. carbolic acid; this may be applied on a probe or grooved director; sponges and instruments used in connection with the cervical canal should for reasons of asepsis not be used elsewhere; 3, closure of the cervical canal by suture and covering of all exposed surfaces with peritoneum (the author's method of uniting the cervical stump by a line of union in the antero-posterior direction and of bringing together the broad ligaments by end-to-end approximation is set forth in Figures 3 to 8; 4, drainage if required.

In supravaginal hystero-myomectomy drainage is usually not required; i. e., if drainage is indicated it would generally be wise to remove the entire uterus, but if drainage is required it is best made with a continuous strip of gauze passed from above downward through a free opening posterior to the cervix into the vagina; this opening should be enlarged by splitting the posterior wall of the cervix, and if necessary also the anterior wall. A gauze drain should usually be removed through the vagina about two days after the operation and the

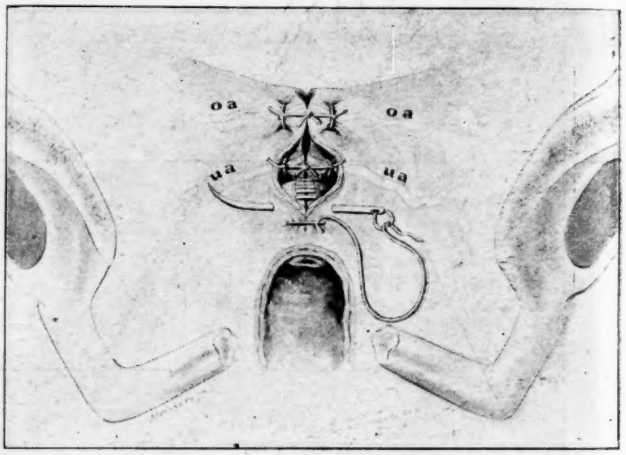

Fig. 6.—*Supravaginal hystero-myomectomy.* o a, o a, ovarian arteries; u a, u a, uterine arteries; the cut ends of the two broad ligaments are brought together—end-to-end approximation—by tying the catgut ligatures which are shown in the grasp of pressure forceps, Fig. 4. The tying of these ligatures brings the broad ligaments into position for final end-to-end union by a continuous suture. The needle here shows the beginning of this suture.

removal of it followed by gentle douches of 0.5 per cent. lysol in sterile water.

E. The abdominal wound should be closed in the usual manner without drain.

COMPLETE ABDOMINAL HYSTERO-MYOMECTOMY.

The removal of the entire myomatous uterus is indicated; first, when the cervix uteri is septic or otherwise so diseased as to render the presence of any part of it unsafe; second, when on account of extensive traumatism or suppuration vaginal drainage is required. In addition to the above indications there is a certain legitimate latitude of choice so that the bias of the operator may be in the direction of complete hysterectomy.

The abdominal incision, the delivery of tumor, the clamping and ligature of the arteries, the division of the broad ligaments and the closure of the wounds, both pelvic and abdominal, are substantially the same as al-

ready described for supravaginal hystero-myomectomy. The following description of complete hysterectomy contains, however, certain peculiarities in technique:

Excision of the Uterus.—When the cervix is accessible through the vagina the first incisions may be made as for vaginal hysterectomy, the bladder and the rectum being stripped away from the cervix, sometimes as far as the peritoneal cavity. The broad ligaments may be separated through the vagina and tied off as high as practicable. In some cases the uterine arteries may be reached and ligatured. The vagina having been temporarily packed with a continuous strip of gauze, the final removal of the uterus through the abdomen will be found easy in consequence of the vaginal detachment. The removal of the uterus is performed as already described for supravaginal hysterectomy; the uterine arteries are usually clamped and tied a little further from the uterus. This necessitates the greatest care not to include the ureters, which cross the arteries near the uterus. The broad ligaments and circumuterine structures are then divided by means of strong scissors, as shown in the illustrations; in making the incisions for this purpose close to the uterus, no harm is done if, on either side, a small portion of the lateral walls of the cervix be left behind. The bladder is stripped away from the cervix as far toward the vagina as practicable and the peritoneum of the posterior wall of the uterus is stripped or dissected off in the same way.

If the vaginal incisions have previously extended into the pelvic cavity, the final removal of the uterus will be easy. If the incisions have not extended so far, the removal will not be difficult; but if no vaginal incisions have been made, the operator may in some cases find it quite tedious, if not difficult, to work his way down into the vagina. The attempt has occasionally resulted in opening the rectum, bladder, or ureter. This difficulty may largely be overcome by a simple device as follows:

The bladder having been stripped off the cervix as far down as possible toward the vagina, the uterus is drawn by means of vulsellum forceps well up through the abdominal wound. This traction exposes the anterior wall of the cervix, which is now freely divided with sharp scissors by a longitudinal incision and the cervical canal thereby laid open (Fig. 9). One blade of the scissors is now passed directly down through the external os to the vagina, and the entire anterior cervical wall is thus divided in a longitudinal direction. The finger now readily passes to the vagina, and serves as a guide for the rapid removal of the uterus by a circular incision around the cervix at the utero-vaginal attachment. In some cases it is convenient to reserve the ligaturing of the uterine arteries to this part of the operation. Small bleeding vessels are tied or twisted. If drainage is not required the wound should be closed complete both on the vaginal and the peritoneal side. This may be done by lines of union from side to side as shown in Figs. 10 and 11.

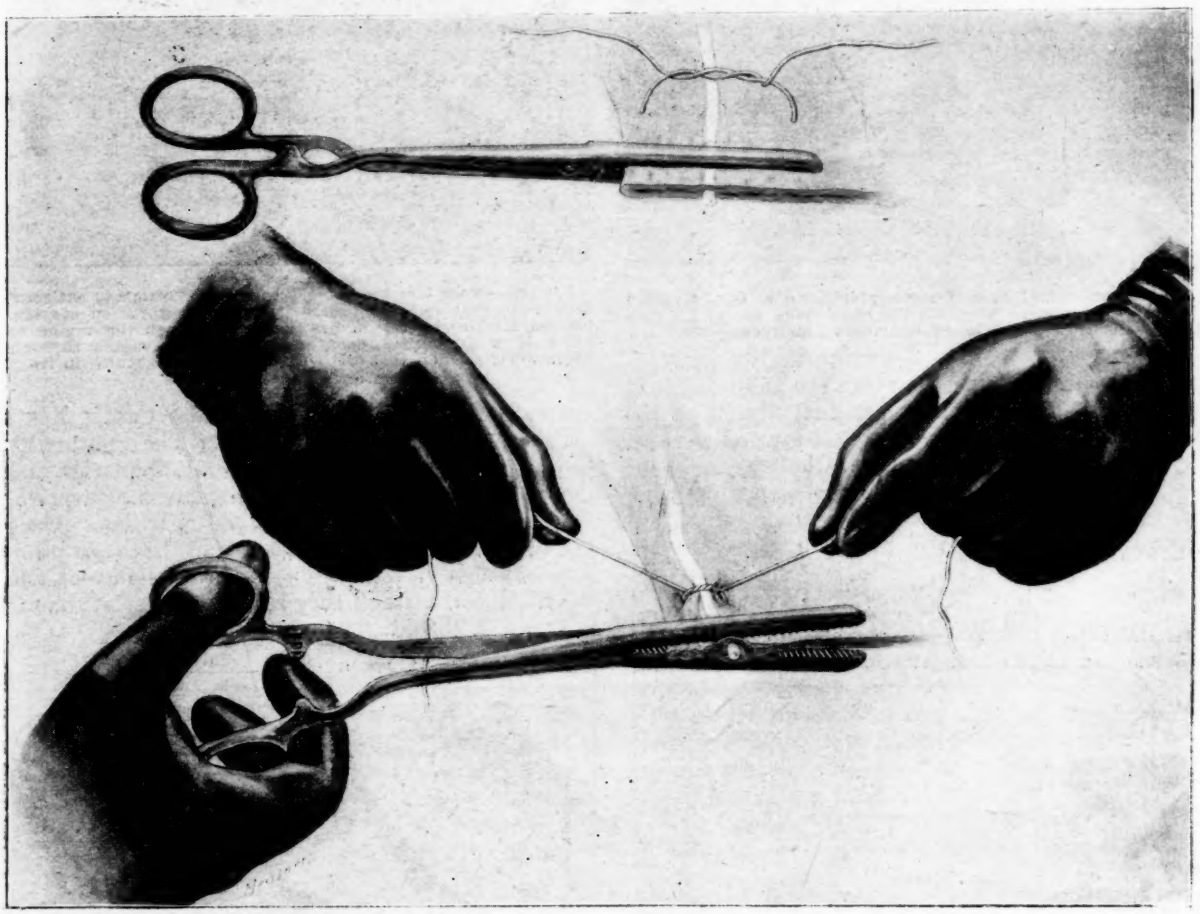

Fig. 5.—*Supravaginal hystero-myomectomy.* A ligature *en masse* surrounding an artery in the broad ligament is being drawn tight and tied; while the operator is tightening the ligature, the assistant is removing the forceps. If the ligature is drawn tight before the forceps are removed the artery will not be sufficiently compressed and hemorrhage may result.

Fig. 12 shows the wound closed by end-to-end approximation of the broad ligaments. If this method is employed the same sutures that unite that part of the

broad ligaments nearest to the vaginal wound should also catch up the upper cut end of the vagina so as to draw it into the space from which the cervix has been excised and unite it to the broad ligament stumps at the point where the ligatures surround the uterine arteries; this serves to draw the vagina strongly upward and to cover the exposed surfaces between the vagina and broad ligaments.

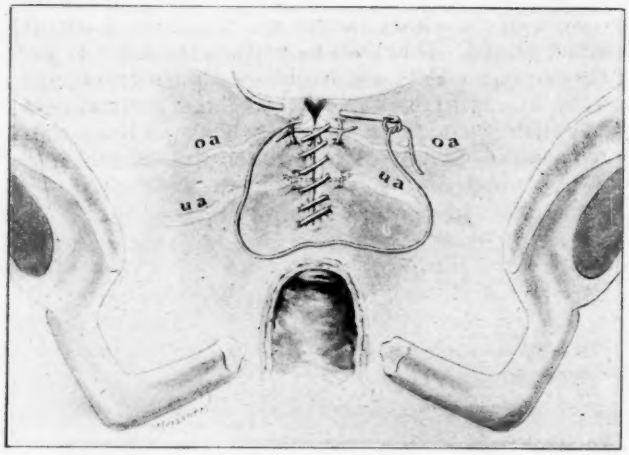

Fig. 7.—*Supravaginal hystero-myomectomy.* o a, o a, Ovarian arteries; u a, u a, uterine arteries; the continuous suture for end-to-end approximation of the broad ligaments nearly complete.

Upon completion of the operation the vagina should be packed with gauze from the vaginal wound to the vulva, and a large gauze dressing placed over the vulva to absorb the drainage fluid and held there by a T-bandage, which should be changed often to keep it dry; the vaginal gauze is removed in about three days and vaginal douches of 0.5 per cent. lysol are then given twice a day.

If drainage of the pelvic cavity is required, it should be vaginal, and the vaginal wound should be left

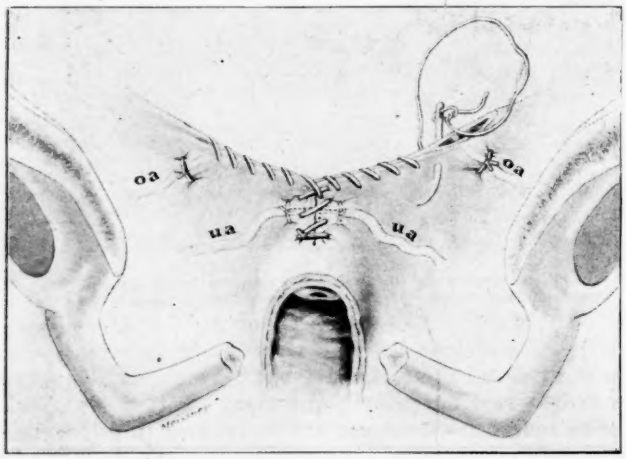

Fig. 8.—*Supravaginal hystero-myomectomy.* o a, o a, Ovarian arteries; u a, u a, uterine arteries. In the case represented by this figure the broad ligaments are too short for complete end-to-end approximation. The end-to-end approximation is therefore carried only part way, but the ligament and the remainder of the closure is accomplished by a line of union running from side to side. The running suture is nearly complete.

open or partly open for that purpose. The drain is introduced as follows: the end of a long strip of gauze, double thick and two inches wide, is passed from the pelvis through the vaginal wound to the vulva; the gauze is then lightly packed from below upward so as to fill the vagina and the vaginal wound, and to cover all surfaces in the pelvis left exposed by the operation. The dressing over the vulva which receives the capillary drainage from the gauze should be kept dry by frequent changing. The gauze drain, being a continuous strip, may easily be removed by the vagina in two or three days.

In hystero-myomectomy the ovaries, if normal or

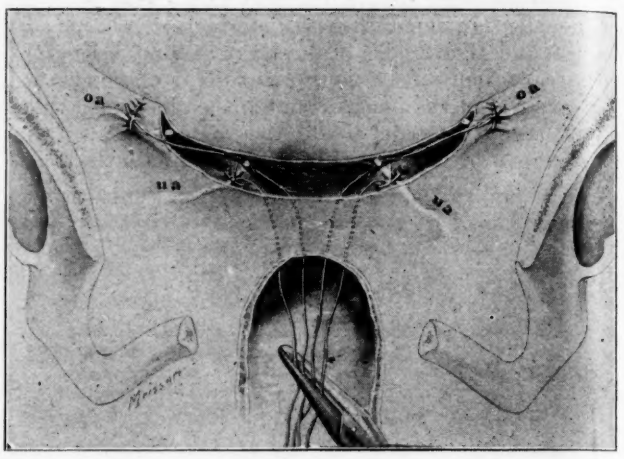

Fig. 10.—*Complete abdominal hystero-myomectomy;* entire uterus and tumor removed; long ends of catgut ligatures on ovarian and uterine arteries have been drawn down through the vagina to the vulva by a pressure forceps passed from the vagina through the vaginal wound, and then withdrawn with the ligatures in its grasp.

nearly normal, should be preserved. Catgut ligatures and sutures are used throughout. The ligatured part should receive nutrition by collateral circulation and all ligatures should be so introduced as not to deprive the ligatured tissues of circulation and nutrition. The proper method of applying the ligatures to the ovarian arteries as they pass through the broad ligament and to the uterine arteries as they reach the sides of the uterus is shown in the accompanying illustration.

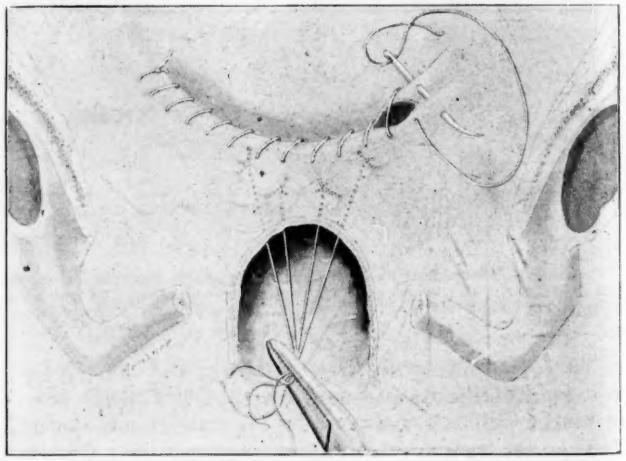

Fig. 11.—*Complete abdominal hystero-myomectomy.* While the ligatured masses which contain the ovarian and uterine arteries are being held down into the vaginal wound by pressure forceps in the hands of an assistant, the operator is uniting by a continuous suture the peritoneal margins of the vaginal wound in such a way as to make the entire traumatism extraperitoneal. This suture may include and fix the ligatured masses and hold them below the line of union; it should also catch up and hold the upper cut end of the vagina in contact with the lower edge of the broad ligament.

Advantages of End-to-End Approximation of the Broad Ligaments in Hystero-Myomectomy.—1. The broad ligaments, when approximated by this method, take the place, in an anatomical sense, of the ex-

cised uterus and form a pouch posteriorly that corresponds to the cul-de-sac of Douglas and anteriorly a depression that answers for the utero-vesical pouch.

2. The broad ligaments, if brought together end to end, give support to the rectum, vagina, bladder and other parts of the pelvic floor and in so doing prevent the descent of those parts—a descent which so commonly results from hysterectomies as ordinarily performed.

3. The broad ligaments when brought together by end-to-end approximation, are interposed between the bladder and rectum and thus prevent the intimate union of these two viscera—a union that would leave a very thin wall between them through which infection might pass from one to the other.

4. The operation is more quickly and easily performed by this method than by that of side-to-side union of the ligaments.

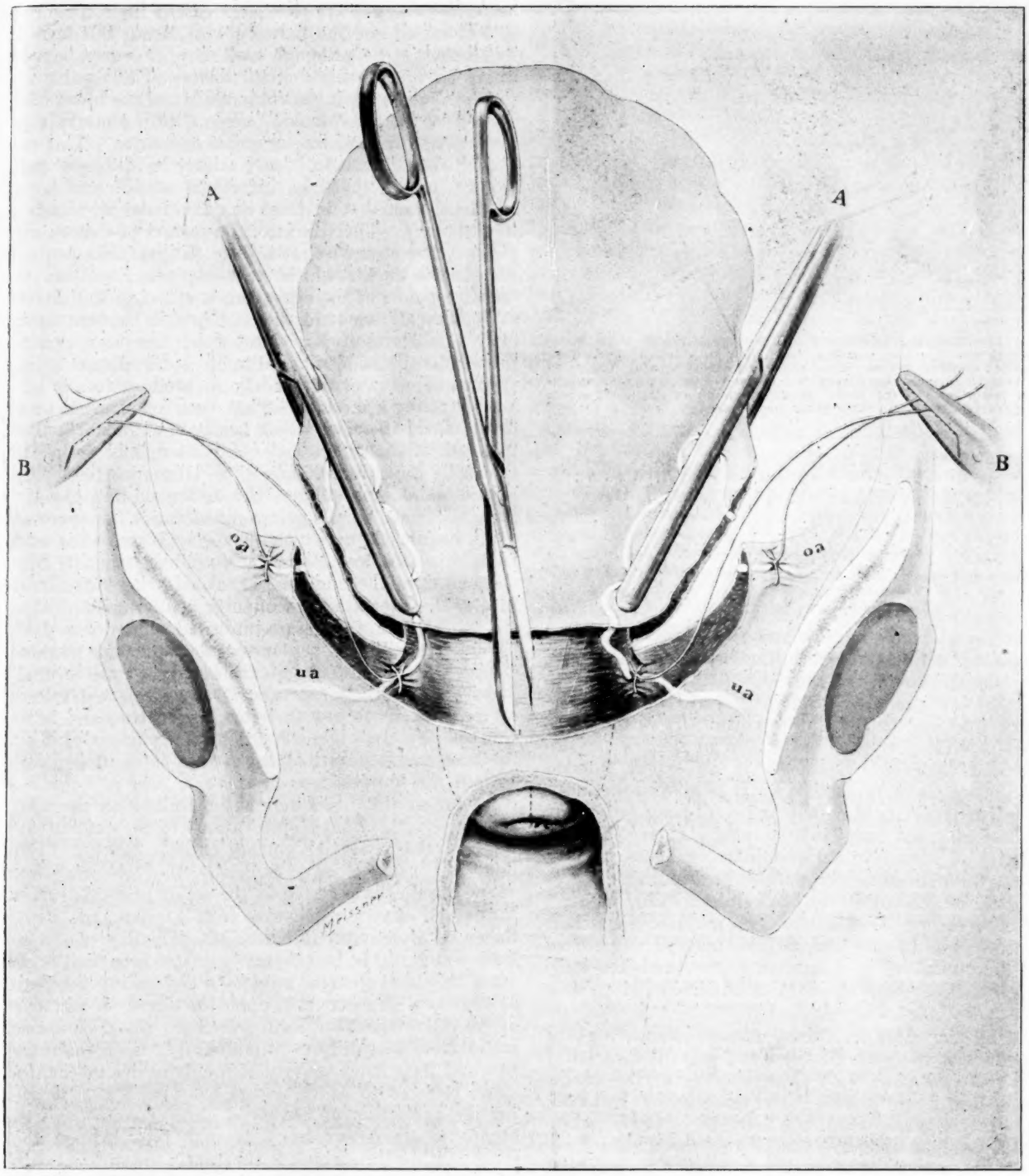

Fig. 9.—*Complete abdominal hystero-myomectomy.* The broad ligaments have been divided on either side of the uterus to the region of the uterine arteries; the circumuterine peritoneum has been divided by a circular incision around the cervix and together with the attached bladder stripped down toward the vaginal portion of the cervix. All clamps which were used to secure the uterine and ovarian arteries except those next to the uterus, A A, have been removed and permanent ligatures have been placed upon the ovarian and uterine arteries, o a, o a, and u a, u a. The anterior wall of the cervix is being split longitudinally by cutting through it with scissors from the pelvic cavity to the vagina. This is to facilitate the excision of the uterus as described in the text. The long ends of the ligatures on the ovarian and uterine arteries are held out of the way by means of forceps B B.

I have united the ligaments by end-to-end approximation often enough to be convinced of the feasibility and utility of the operation.

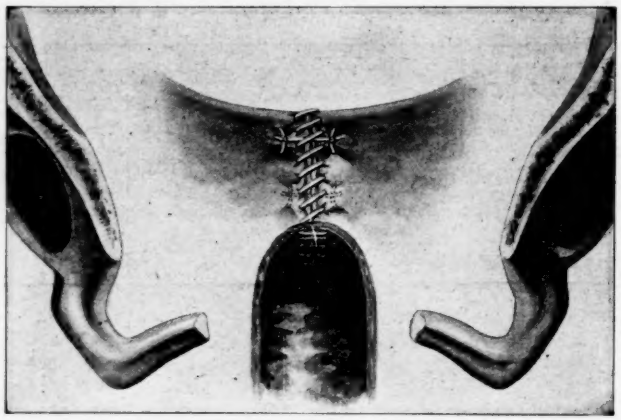

Fig. 12.—*Complete abdominal hystero-myomectomy.* The broad ligaments are brought together from side to side and united by end-to-end approximation. The upper extremity of the vagina is also closed by suture introduced from side to side so as to fasten it to the lower part of the broad ligament wound at the point where the ligatured uterine arteries are approximated.

ANEMIAS SECONDARY TO GASTRO-INTESTINAL DISEASE, WITH REPORT OF TWO CASES.*

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FORT WAYNE, IND.

The complex relationship and function of the blood stamps it as a tissue unique in the animal economy. As the common carrier of the body, it is compelled to transport every molecule which passes to and from the tissues, into and out of the organism. It is thus subjected to widely varying influences of both a physiologic and pathologic character to an extent equaled by no other tissue in the body. It is able to maintain the integrity of its function and a distinct autonomy by what may not inaptly be termed its own inherent elasticity of structure. Its cellular elements may be reduced in number under pathologic conditions to 25 per cent. or less of its physiologic standard, and yet perfect recovery be possible. Their most important chemical constituent—hemoglobin—may be reduced in each individual cell to a similar degree, with the same possibilities of restoration to a condition of perfect health.

Among the most important factors influencing the function and structure of the blood may be mentioned the digestive organs with their widely varying conditions of health and disease. The integrity of the blood, as of every other organ of the body, is, of course, obviously dependent upon the function of the digestive organs. The theory that numerous blood diseases, and especially the anemias, are frequently the direct or indirect result of morbid conditions of these organs has been formulated many times in diverse forms, and substantiated by a large amount of clinical evidence. Facts of an experimental character, bearing upon these questions, are exceedingly difficult to procure for many reasons, a few of which I will endeavor to point out. In the first place everything indicates the search for a specific organism, the metabolic products of which would produce anemia with the same constancy that the organisms of diphtheria, syphilis, etc., produce their characteristic results, will be quite as futile in the future as it has been in the past. The conclusion seems at present justifiable that such hematolytic effects as may result from bacterial processes are to a large extent the common result of varied and indifferent toxins, using this term in its broadest sense, although some may, of course, be more active in this direction than others. The results will further depend upon the vulnerability of the blood itself as well as the blood-making organs, to the morbific influences of varied character under discussion. This vulnerability will not only vary widely in different individuals, but in the same individual at different times. In this respect it constitutes no exceptional phenomenon in pathology. That the etiologic factors of disease may be active or otherwise, according to that unknown and undefinable factor which we are pleased to term the resistive power of the organism, is a fact so well known as to scarcely need mention. Thus it happens under many conditions that a cause which has been existent for years will suddenly, owing to some change in environment or internal conditions, produce results of a most striking character. That such phenomena occur in the blood is a fact which has been abundantly illustrated in my own clinical observation, and is in fact shown by the cases which will be later reported. With regard more especially to the action on the blood of poisons formed in the gastro-intestinal canal, there are many conditions by which they may be modified aside from the vulnerability of the blood itself. The epithelium of the intestinal canal, and the entire structure of the liver, stand as important intermediate laboratories between the gastro-intestinal contents and the blood. The ordinary peptones of digestion, for instance, are toxic if introduced into the blood, but are so modified by the epithelial structures above referred to, and by the liver, as to lose their toxic properties and be assimilable by the organism. The observations of Kottnitz[1] on gastro-intestinal mucosa in cases of leukemia sustain this proposition.

So far as the direct actions of poisons on the blood are concerned, clinical observations of an explicit and demonstrable character are not entirely lacking. Ehrlich, for instance, says explicitly that the resistance of the blood cells as tested by the action of dilute salt solution and electric discharges from Leyden jars, etc., is increased after many intoxications. The degree of virulence which will be manifested by gastro-intestinal toxins when they find their way into the circulating fluid will be obviously dependent, 1, upon the degree of virulence of the micro-organism itself which for the same species varies greatly at different times, and 2, upon the integrity and functional activity of the defensive mechanism above referred to which nature has placed as a barrier for the protection of the blood and, of course, all the organs which it supplies. It may thus happen that the colon bacillus, which is constantly present in health in the large intestine, may under modified conditions become exceedingly virulent and its action upon the blood and other tissues suddenly become of a severely toxic character. Such a change has, in fact, been experimentally demonstrated to take place with this particular organism. Finally, I wish to call attention to a fact that I do not remember seeing emphasized, viz., that some agents, such as potassium chlorate, which produces a leucocytosis, also produces destructive changes upon the erythrocytes in the circulating fluid.

* Presented to the Mississippi Valley Medical Association, at Put-in-Bay, Lake Erie, Sept. 13, 1901.

1. Ewing: Pathology of the Blood, 1901, p. 201.

I have found moderate leucocytosis in a large proportion of the cases of intestinal toxemia wherever the reaction to the organism was sufficiently strong to produce it, and I believe that there is good reason for assuming a hemolytic action upon the erythrocytes under many, if not most of the conditions which produce a leucocytosis. Of course this does not exclude the possible hematolytic action of certain toxins such as those of tuberculosis, which do not produce a leucocytosis.[2]

In this connection, the recent experimental and clinical observations of White and Pepper[3] on the granular degeneration of the erythrocytes produced by lead are exceedingly suggestive as to possibilities of chemical poisons acting on the erythrocytes. I have frequently observed the granular changes which they describe, but have regarded them as artefacts, due possibly to errors in technique, although that technique was apparently uniform. It seems reasonably certain that there are other structural changes in the erythrocytes which are not demonstrable by present methods of research, produced by a variety of chemical agents circulating in the blood. The resistive power of the red cell to different dilutions of normal saline solutions, as well as its varied resistance to other destructive agents—such as a shock from a Leyden jar, etc.—can only be due to variations in the construction of the cell, the nature of which can not at present be determined. The recent studies of Ehrlich and Morgenroth, an excellent summary of which has recently appeared in Meltzer's[4] article, also point to the same conclusion. The hemolytic actions of certain alien serums is a remarkable phenomenon, and points to the probability of there being many chemical agents which may find their way into the blood, as factors in lowering the resistive power of the red cells, and leading to premature senescence and decay.

The following cases are briefly outlined as furnishing clinical evidence in supporting the views already set forth:

CASE 1.—I. D. M., a patient of Dr. Wright of Convoy, Ohio, consulted me June 11, 1901, complaining of extreme weakness, loss of appetite, pain in the back, palpitation of the heart, dyspepsia, and disturbance of the stomach function.

The stomach symptoms were of long duration, his health having been somewhat impaired in this respect for a number of years. Three months before my examination he began to run down in strength until within a few weeks the exhaustion had become extreme. It was progressive up to the time of his visit to my office.

The blood examination showed 1,500,000 red cells, 4300 white, 30 per cent. of hemoglobin.

Examination of the urine gave the following result: Total quantity per 24 hours, 950 c.c.; specific gravity, 1022; total solids, 25.63; urea, 2 per cent. or 19 grams. Indican and skatol were both present in moderate amounts; no albumin or sugar.

Stomach examination, Ewald test breakfast, removed in one hour, gave the following results:

Total quantity, 20 c.c.; no free HCl; total acidity, 85. Lactic acid was present in considerable quantities. Starch digestion was good; biuret reaction faint. The fasting stomach contained large quantities of cellular debris. There was also severe colitis, evidently chronic in character.

Physical examination revealed a somewhat large and indurated liver; heart normal in size, but with a mitral systolic bruit.

Examination of the dried and stained blood films showed the red cells to be of normal size with very few normoblasts and no megaloblasts. There was a very severe poikilocytosis, the cells assuming different sizes and shapes. Measurement of less than 100 cells gave less than the normal average, about 6.5 microns.

The case was regarded as one of secondary anemia, probably resulting from disease of the digestive tract, and treatment instituted acccordingly. He was placed upon Fowler's solution, with bitter tonics, and a 5-grain dose of double citrate of iron and quinin three times a day. This was not materially different from previous treatment. In addition he was given local stomach treatment every day, consisting of lavage, pneumatic gymnastics according to the method of Turck, and electricity. He was also given colon lavage for the colitis, with general hydrotherapeutic measures, particularly in the form of hot and cold douches.

Improvement was manifested in a week, and the red cell count and the hemoglobin showed progressive improvement from this time on until August 7, less than two months from my first examination, when the red cells numbered 5,000,000 and the hemoglobin 100 per cent. The patient's general condition was also very good, and he was discharged cured, with the exception of the gastritis, which was greatly improved, but not well.

CASE 2.—A. B. M., referred by Dr. S. E. Mentzer, Monroeville, Ind. Farmer, aged 31, complains of stomach and bowel trouble of about 5 years' duration. Health always good until that time. He once had an attack of bloody flux, and since then has had occasional bloody stools. After a couple of years he began to have stomach symptoms, and for the last two years his health has been in bad condition. Shortly after eating he has abdominal distress, followed by thin, watery movements mixed with particles of unchanged food. He has lost 40 pounds in weight. His limbs were covered with purpuric spots in varying grades of intensity, some deep purple and others much faded, from the size of a silver dollar up to the size of one's hand. For two weeks before examination he has had extreme dyspnea on slight exertion.

Physical examination shows enlarged spleen, liver and heart with systolic bruit, most marked over the apex. Blood examination showed 1,700,000 red cells, hemoglobin about 25 per cent. Examination of the urine; total quantity, 250 c.c.; specific gravity, 1030; total solids, 24.36; urea, 4 per cent. or 14 grams; skatol and phenol in abundance, but no indican and no albumin or sugar.

A somewhat similar line of treatment, modified with special reference to the altered pathological conditions of the intestines, was instituted. The patient was unable to leave his room in the hospital, the exhaustion was so extreme.

Improvement was very slow in appearance in this case, although an increase in the red blood cells and hemoglobin was manifested after a week or ten days. After this time improvement was progressive, and in three and one-half months from the time of treatment he was discharged with the anemia cured, the red cell count having reached 5,000,000 and the hemoglobin 100 per cent. The chronic gastro-intestinal disease was much improved, and the general physical condition very satisfactory, the patient being able to do light work on his farm. He is still continuing treatment for the gastro-enteritis under the care of his family physician.

So far as one can judge the histo-chemical pathology of the blood, these cases were certainly secondary anemias, and whatever view may be taken of the precise pathological processes involved, the previous history of the cases, and the therapeutic test appear to establish the etiologic roll of the gastro-intestinal disease. This is the practical clinical fact, and, in attempting its explanation we may freely admit the debatable character

2. Clinically, leucocytosis is commonly found in phthisis, but it is due to a mixed infection.
3. American Jour. Med. Sciences, September, 1901.
4. New York Medical Record, Aug. 3, 1901.

of the ground upon which we stand. Indeed, it seems to me that to insist upon any single factor as playing an exclusive rôle is to take too narrow a view of the situation. We should, for instance, recognize, 1, the importance of the varying grades of subnutrition encountered; 2, the chemical factor, the precise nature of which can not usually be determined, but the existence of which, as a factor in morbid hemogenesis, is substantiated by a mass of clinical and experimental evidence, quite conclusive in character, and includes, in its broader relations, not only the products of digestion unmodified by the physiologic functions of entero-hepatic structures and bacterial ptomains, but the leucomains of normal or morbid metabolism, and the products of bacterial growth on all mucous surfaces or parenchymatous structures; and last, but perhaps not least, because of its greater permanence, that intangible something, the expression of a hereditary or acquired vice, which determines what has been called the vulnerability of the tissue or organ. Such, it appears to me, is the broad view which clinical medicine should take of these cases, and in calling attention to the rôle of gastro-enteric disease, with a report of a couple of selected cases, I would especially emphasize the importance of not losing sight of the other factors to which attention has been called.

407 W. Main Street.

THE ANATOMIC FACTOR IN THE PRODUCTION OF BALDNESS.

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ASSISTANT DEMONSTRATOR OF ANATOMY, TRINITY MEDICAL COLLEGE.
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Cunningham, in opening his chapter on the dissection of the scalp, says: "Strictly speaking, the term 'scalp' should be restricted to the soft parts which cover the vault of the cranium above the level of the temporal ridges and the superior curved line of the occipital bone"; whilst Treves states it is convenient to consider the term "scalp" as limited to the structures formed by the union of the first three layers, viz., the skin, the subcutaneous fatty tissue or superficial fascia, and the occipito-frontalis muscle and its epicranial aponeurosis.

How strikingly does the scalp area of Cunningham correspond with the area of baldness as seen in most individuals the subjects of this condition! But still more precisely and accurately does the area of baldness correspond to the area of the epicranial aponeurosis, a structure in which there are no muscular fibers nor yet any underlying muscular fibers between it and the bone. That the production of baldness has an anatomic factor, I propose now to discuss more in detail.

The skin of the scalp is intimately connected with the underlying epicranial aponeurosis by the superficial fascia. In fact these two structures are so firmly attached by dense fibrous bands that it is a difficult undertaking for a dissector to essay their separation. Among these meshes lie the fatty tissue, the nerves and the vascular structures before they break up to supply the skin. Similar superficial fascia is found in the palms of the hands and the soles of the feet; and it may be significant to note that of the three regions of the body supplied with this dense superficial fascia, the overlying skin in the two latter is altogether destitute of hairs, whilst the third, the scalp area, very often becomes similarly destitute in later life.

Any one who takes the trouble to examine and observe closely must be struck by the fact that baldness occurs on the top of the head and rarely if ever extends below the temporal ridges latterly, or even down to the superior curved lines of the occipital bone posteriorly. It will be noticed also that baldness extends lower in the middle line behind than it does an inch or so on either side of the middle line posteriorly. This, of course, corresponds to the fact that there are no muscular fibers in the middle of the occipito-frontalis muscle at its attachment to, or rather origin from, the external occipital protuberance and the adjacent parts of the superior curved lines.

The skin of the scalp, therefore, overlying the epicranial aponeurosis, has no underlying muscles to exercise it, and has only to depend upon the action of the occipito-frontalis muscle to which it is closely adherent, and only moves when that muscle is put into action; and how often that muscle is moved in twenty-four hours, I leave any one to conjecture. In no other region of the body is there such an extensive area of skin which does not receive adequate exercise either through underlying or adjacent muscles.

The skin of the area of baldness is abundantly supplied with blood; the scalp is very vascular. There is nothing anatomic or mechanical to interfere with or retard the arterial supply, unless it be the proverbial constriction of the hat assumed by the male portion of the population. As far as this acts upon the arterial trunks, it is infinitesimal, but upon the return flow in the lymphatics and veins the hat has its influence.

The lymphatics and veins drain the area of baldness in five different directions. On either side of the middle line anteriorly, there is a lymphatic stream down the forehead past the nose and over the face to the submaxillary glands. Latterly these vessels lead to the lymphatic parotid glands; posteriorly, into the post-auricular and suboccipital glands. The fifth is along the path of the emissary veins through the parietal foramina when present in the parietal bones, into the superior longitudinal sinus. I have recently taken the trouble to examine a number of parietal bones. In a great many of these the parietal foramen, which when present is generally situated about an inch or so anterior to the posterior superior angle on either side of the sagittal suture, was absent altogether; and it was in the smaller and thinner bones that it was present. It would be, perhaps, an interesting point to know whether this parietal foramen with its emissary vein, were more constant in women than in men, as its presence must add materially to the draining facilities of this region.

Whilst the skin of this area of baldness and consequently the hair follicles may have a good nourishing supply directed towards them, the functions of the hair papillæ may be stunted by the slow return flow through the veins and lymphatics. What is there to accelerate that flow? Nothing but the inactivity of the epicranial aponeurosis, and, perhaps, to a slight extent, gravity. There is no active muscular exercise in the part whatever, to hurry along the waste products and the deoxygenized blood in the vessels. These structures being superficial and more compressible than the arteries, their compression by the rim of the hat will further retard their flow. In their passage outwards from the center of the dome, the rate of flow is dependent entirely on the gradual fall, that is, to gravity. When they approach the borders of the dome, however, the fall is precipitate. Here, also, the influence of underlying muscular structures comes into play. One can easily demonstrate this by placing the hand on the back of the head and noting the extent of skin exercised in the nodding

and turning movements of the neck. So on the sides. The temporal regions have their skin abundantly exercised through the action of the temporal muscles. Very often a tuft of hair remains for a long time over the forehead when the falling-out process is advanced to a great degree behind it. That may be due to the part being well drained on the border of the dome, which is also to some extent exercised by the anterior muscular fibers of the occipito-frontalis muscle, which fibers extend well up to the hair line in front.

Baldness does not prevail in the female sex to anything like the extent it does in the male. Very few women become bald even in far-advanced life. This is generally put down to the fact that they give more attention to their hair, dressing and combing it night and morning; and their light headgear. The scalp in them is well exercised by the combing, plaiting and throwing from side to side, movements which impart a good deal of exercise to the scalp. Women suffer from dandruff equally with men. If dandruff be the prime cause of baldness in men, why are its destructive effects not equally seen in women? Men comb and brush their hair in a minute, probably once, or twice or thrice daily. There is no exercise to the scalp in these maneuvers of a minute's duration. During the hours of sleep the dorsal or either lateral decubitus is assumed. This may have a slight effect in hastening onward the return flow from the roots of the hairs in the bald area. In the expressions of surprise, etc., when the anterior fibers of the occipito-frontalis produces wrinkling of the skin of the forehead, the exercise to the skin is beneficial to the hair over the forehead. But how often are these expressions depicted on the human countenance?—especially as age advances, and more control is exercised over the muscles of expression. If there be no anatomic factor in the production of baldness, how is it that dermatologists order massage in the treatment of calvities and the falling-out process? How is it that when the scalp has become bound down and absorption of the fat in the superficial fascia has taken place that no measure of relief can avail? Simply because the hide-bound skin can not be exercised. In scleroderma, even, the hair frequently falls out in the part affected. Massage is the substitution for exercise, and its object is to get rid of the choking and damming back in the veins and lymphatics.

The foregoing being correct, the way to treatment is pointed out. Prevention through massage-exercise is nine points in the law of treatment. This should be begun in early life, at the time when the youth is gradually developing into the more sober man, when his occipito-frontalis muscle has become more and more subordinated to his will. Massage should be performed the same way as in other regions, first freeing the vessels farthest from the seat of trouble and gradually approaching the center. It should be done at night as well as in the morning, particularly at night, as gravity has little or comparatively little chance through the day. If the scalps of men received as much exercise as the scalps of women, there should be on the vaults of their craniums a luxuriant growth of hair. The American Indian is said by Holder never to grow bald. The reason lies in their comparatively long hair. The close-cropped Indian of the Reserve is not wholly exempt.

129 John Street.

The plague in India caused 12,675 deaths in the week ending February 15, and 15,165 in the previous week.

OCULAR LESIONS ASSOCIATED WITH CONSTITUTIONAL DIATHESIS.

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SAN FRANCISCO, CAL.

In calling your attention to this subject the writer does not desire to create the impression that he has anything purely original to offer, but to call your attention to the fact that the human body is too much of an entity for any one system to be exclusively deranged, while others remain healthy; actions and reactions are the two great rules of organic life. Functional waves of reflex influences are always sweeping to and fro through the body and peripheral irritations of every kind, and every phase of organic disturbances may excite a reflex that will influence the actions and perhaps the nutrition of the eye and its appendages.

Sir Thomas Watson said: "We find in the eye more satisfactory and plain illustrations of the general facts and doctrines of pathology than in any other single organ of the body; certain changes in the eye are known to accompany certain diseases of the brain and spinal cord, and also certain lesions of organs more remote, which are also the expression of general and constitutional disease."

In reflex neurosis it is very difficult to tell from what part of the organism proceeds the hidden mischief, so that unless an oculist is well versed in every branch of medicine, his field of investigations will be limited. The association of ocular lesion with constitutional diseases is determined by anatomical connections, partly by histological peculiarities of the texture severally involved, but chiefly by their embryological origin and relationship. As you are aware, nearly all the tissues of the body are represented in the eye and its appendages, and are liable to all the pathological changes which affect like tissues in the body; therefore our thoughts should not be centralized on the eye itself to the exclusion of other consideration, for the ocular notation may be only a sign and symptom of the changes that are produced in the animal economy. For instance, the eye lesion in diabetes and Bright's disease is more diagnostic than prognostic.

Tweedy, in his paper on "Constitutional Diseases of the Eye in the Light of Embryology," points out many highly suggestive and interesting facts in this connection. The embryological origin of the various structures of the eye from the layers of the blastoderm is represented schematically. He thus shows that there is a histological and physiological relationship between the epiblastic elements of the eye and the epiblastic tissues of the rest of the body, and between the mesoblastic tissues of the eye and all other mesoblastic tissues. He further states: "The pathological relationship is none the less intimate and exact. The cutaneous eruptions of strumous children; the eczemas, herpes, impetigos, etc., are concomitants of the phlyctenulæ of the epithelial layers of the cornea. In ophthalmic herpes the corneal change is likewise epiblastic. Syphilis, on the other hand, is a disease of mesoblastic texture, and ocular syphilitic affections are found to be of the mesoblastic origin. The notched, pegged and stunted teeth of inherited syphilis are not faults of the epiblastic enamel, but of the mesoblastic dental papillæ. Though epiblastic portions of the eye may become secondarily involved, the lesion begins in the mesoblastic structures. These and other analogies are valuable not only for diagnostic purposes, but also for therapeutic uses. Certain drugs have a special

affinity for particular tissue-element, and this fact may be utilized in prescriptions."

I had the honor of reading a paper before this section in 1894, on the associations of optic atrophy with locomotor ataxia. That a certain portion of the spinal cord exercises a direct influence on the eye has been beyond a doubt established by experiments of modern physiologists. We see in asthenopia, due to vasomotor paresis affecting the retinal vessels, this condition is reflex and mostly dependent upon disorders of the pelvic or genital organs. The aching sensations are apt to be more constant and less relieved by rest than in pain from errors of refraction. The ophthalmoscope will disclose a turgid condition of the retinal vessels. The third root of the lenticular ganglion is a slender filament derived from the cavernous plexus of the sympathetic, and one of the branches of the ganglion is a small filament which penetrates the optic nerve along with the arteria centralis retinæ, to supply the walls of the retinal vessels. The path, therefore, from the pelvic plexus of the sympathetic is an almost straight road, and disturbance in the circulations of the pelvic organs produces a wave of vessel dilations which travel over this path. Such cases can not look fixedly for any length of time at any object, near or remote, without exciting severe pain in or about the eye.

Again, in disease of the eye in connection with pregnancy, it can not be a matter of surprise that in some instances the effect of this general disturbance should be felt in the organ of sense, and therefore in the eyes, which respond so readily to any disorder of the vascular or of the nervous system. Unless the symptoms are very prominent they are not complained of by the patients. If they do, it is put down by the family physician to general indisposition or disorder of the digestive organs, and especially the liver.

Hysterical patients, in their psychological condition, may present almost any symptom of disease without the existence of any lesion to which such symptom could be referred. We see spasmodic action of the external muscles of the eyeball in neurotic subjects. Young ophthalmic surgeons perform tenotomy as a cure for all the ills that nerves are heir to; in fact, the external muscles of these hysterical patients are, in a large proportion, not better balanced than their minds.

Lithemia.—Lithemia is another cause of eye trouble. You all have seen Hutchinson's "hot eye." Mr. Hutchinson has illustrated in his works the connections of certain diseases of the eye with gout, also gout with destructive form of iritis. Intermission is characteristic of ocular gout. Of the poisonous waste products, those of the uric acid type are the most prolific in producing constitutional disturbances, acting directly as irritants and indirectly on the nervous system, causing tenderness and pain of the ciliary regions, troubles of accommodations which no glass will correct, and often called spasms of the accommodations, and floating spots in the vitreous. These symptoms disappear when attention is paid to the systemic trouble, administration of salicylates and lithia salts.

Gastric.—To the stomach and the alimentary canal is due the origin of the phlyctenular ophthalmia of children caused by ptomains from the mal-digested articles of food and from their absorption into the system, producing other eye troubles of an intermittent character.

Teeth.—The mutual relationship between the teeth and the eyes are more intimate than is commonly supposed, no doubt due to the anatomical connection through the ganglionic filament of the first branch of the fifth nerve to the lenticular ganglion, which is in connection with the third nerve by its short root. We often see conjunctivitis, neuralgia and lachrymation due to some pathological trouble in the teeth, the reflex trouble disappearing as soon as the dental trouble is corrected.

Ear.—How often we find ophthalmic patients to be at the same time laboring under some affection of the ears. For example, in children with scrofulous ophthalmiæ, there is often chronic inflammation of the drumhead, with discharge from the ears; example of connections of disease of the ears with disease of the eye is the supervention in cases of keratitis or kerato-iritis from congenital syphilitic taint. Numerous ocular manifestations of influenza or la grippe are reported by various observers.

Nose.—The lachrymal passages which maintain a communication between the conjunctival space and the nasal cavity are the seat of some of the most troublesome affections of the eyes. Decker, in a study of the etiology of herpes cornea, states that the fact that a hypertrophic catarrh of the nose co-existed, and that the recurrent attacks of keratitis were preceded by an acute exacerbation of the nasal trouble, which grew less intense after appropriate treatment of the nasal mucous membrane. With us on the Pacific coast, where catarrh is prevalent, patients complain of burning and smarting of the eyes; the conjunctiva is inflamed. By appropriate treatment to the nasal trouble the eye symptoms disappear.

In conclusion, I would say that in all ocular troubles, remove the cause, whatever it may be, syphilis, rheumatism or other debilitating and lowering dyscrasia. We must remember that it is not only our province to gain knowledge wholly from a single organ and direct treatment to the same, but we must study the general condition of our patient and see if we can not find a cause for the local change.

THE PROSTATE.

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CHICAGO.

(Concluded from page 749.)

PROSTATECTOMY.

It is very gratifying to note the advances that have been made by the medical profession in the operative treatment of prostatic enlargement in very recent times. Even so modern a man as Sir Henry Thompson said that he did not believe it was possible to operate on a case of enlarged prostate and have a result that would permit him to discontinue his catheter and still be able to empty his bladder and retain his urine; now we know that these results are of daily occurrence.

The indications for prostatectomy are: 1, prostatic enlargement to a pathologic degree, i. e., sufficient to prevent urination or cause large residual retention; 2, painful and frequent urination; 3, cure for catheter life; 4, cure for secondary cystitis; 5, for the relief of pressure on the rectum; 6, it should be the operation of election where the patient is in condition to withstand the operative procedure and the local general conditions are favorable. The operation should not be considered nor used as a last resort. Local or spinal anesthesia should be preferred in selected cases.

Suprapubic Prostatectomy.—Dr. William T. Belfield of Chicago deserves the honor of being the first to follow a deliberate plan for the removal of the middle lobe through a suprapubic incision. This was not an acci-

dent, as suggested by Mr. G. Buckston Browne, but was a deliberately planned and executed operation, as was well known to many of the Chicago profession at that time; the honor is incontrovertibly his; while Dittle's operation was not deliberately planned and executed, but was done in an emergency. Mr. A. F. McGill laid down more definite indications and lines of procedure three years after Belfield's original work, although we believe it can be said that McGill had no knowledge of the Chicago surgeon's technic at the time he performed his first operation.

The suprapubic route was the one uniformly followed in my ten years' service at the Alexian Brothers' Hospital. Either enucleation or cauterization was accomplished through a suprapubic opening, by the aid of curved scissors, Kocher dissector, volsella forceps and the index finger. The middle lobe was readily and easily enucleated, but the enucleation of the lateral lobes through the suprapubic route was always a difficult, bloody, dark and unsatisfactory procedure, though many times very gratifying in its relief to the patient. In this technic there is practically no danger of opening the peritoneum, as the base of the prostate is situated fully half of the length of the bladder below the most dependent portion of the vesico-rectal folds, and is very movable at that point. There is danger, however, of lacerating the rectum.

Dr. Charles H. Mayo favors the suprapubic enucleation of very large middle and lateral lobes, and believes that the technic is more simple and the results more favorable by this procedure, using suprapubic, or suprapubic and perineal, drainage, according to individual indications.

Proust[15] describes an elaborate technic for a subtotal prostatectomy with subsequent suture of the pedicles. The vasa deferentia and the slit in the urethra are also sutured, while a catheter is left in place. The suturing of the vasa deferentia or seminal vesicles would seem to us a difficult task. Mr. P. F. Freyer,[16] commenting on injury to the seminal vesicles, considers that it is a matter of little importance what becomes of the ducts and pays no attention to them. In speaking of hemorrhage, he claims in suprapubic operations that when the gland is enucleated from the capsule there is little hemorrhage.

Dr. Ramon Guiteras[14] collected 153 prostatectomies, by various methods. Of these 110 recovered, 72.3 per cent.; 25 died, 16.4 per cent.; 17 were failures, 11.2 per cent.; and he concludes that the results in those that recover from prostatectomy are better and more permanent than those following prostatotomy. He believes, however, that great care and judgment must be used in the selection of cases, and submits the general rule that "the large glands are favorable for enucleation and the small ones are best treated by prostatotomy; and if the kidney be diseased, either medically or surgically, the Bottini should be resorted to."

Eugene Fuller[17] favors the suprapubic route for the large prostates, and believes that the operation of enucleation can be performed cleaner and safer in that way; but, where the bladder wall is hypertrophied, he considers it much easier and safer to use the perineal operation.

From the 15 cases of suprapubic prostatectomy reported by Dr. Hugh H. Young,[11] there were two deaths, neither of which, however, can justly be attributed to the operation. The ultimate results from the suprapubic operation were very favorable. In this number he classes 11 as "complete enucleation of the prostate." (I believe, however, he means enucleation of the lateral and posterior lobes and not a complete prostatectomy.) Ten of the 15 were classed as cures and two still suffer from cystitis.

Dr. Floyd W. McRae[11] strongly favors the suprapubic operation, and reports three successful cases. He considers there are special advantages in his ingenious "parachute" drainage method. One of his operations was on a case previously treated by the Bottini plan.

Mr. Harold L. Barnard[18] thinks that the success following enucleation of the prostate for adenomatous hypertrophy, which he considers the most suitable type, is not equaled by any other method of treatment, although he prefers the suprapubic method.

Dr. William N. Wishard[6] strongly favors the suprapubic Belfield-McGill operation, as modified by Fuller and Alexander. He believes it is the most direct means of attack, and gives the best results, as expressed in the following: "If the suprapubic operation has been thoroughly done, and the obstruction all removed, the patients afterwards are assured of more perfect function than by any other method." He thus expresses himself concerning the perineal operation: "The operation may be regarded as limited to drainage operations and to small pedunculated growths, and to the division of collar-shaped enlargements of small size."

Perineal Prostatectomy.—Dr. Syms[19] prefers the perineal route, because it appears to him most direct. He believes[20] that the median perineal incision should be made and considers that he derived great advantage from his prostatic retractor in the twelve cases in which he used it. He favors the removal of the left lobe first, the middle lobe second and the right lobe last, and the use of a steel sound every third day after the operation. He forcibly advocates the early operation. He operated on 9 cases; all recovered; in 8 there was complete restoration of function.

Dr. J. W. S. Gouley[20] favors the perineal route. The retractor of Gouley[21] appears to have many advantages, although I have not used it, as the hooks are so much more readily applied.

Dr. John A. Wyeth[22] believes the perineal operation the one of choice. Dr. Alexander agrees in this view but makes the suprapubic incision so that he may force the prostate into the perineum. This is not necessary where the hooks are used, and the capsule and deep perineal fascia properly divided. Most of Dr. Alexander's patients were out of bed in five or six days. No aged patient, after any operation, should be allowed to lie flat on his back. He should be placed in a sitting position immediately, should occupy the recumbent position at night and should be out of bed as early as the fourth or fifth day.

Dr. Alexander Hugh Ferguson[11] reported six cases at the Atlanta meeting, in which he removed the prostate by morcellement. He claims advantages for this method, and has a prostatic forceps so constructed as to "bite" out fragments of the prostate without danger of injury to the surrounding parts; he also has an intravesical depressor which he believes adds much to the ease with which the operation is performed. His six patients made good recoveries. He also calls them complete prostatectomies while I believe he means lateral and posterior prostatectomy, allowing the portion of the prostate known as the "isthmus" anterior to the urethra to remain.

Dr. James Bell[23] beautifully illustrates with a case, a type of prostatic enlargement in which the Bottini

operation would have served no purpose, and in which a prostatectomy produced an ideal result.

Dr. Charles Whallen[24] favors spinal anesthesia for prostatectomy.

By the perineal operation the wall of the bladder should not be divided nor torn, but the posterior wall of the prostatic urethra should be removed. The urethra should never be opened primarily, and the prostate should never be shelled away from the bladder from before backwards, but always from behind forward, dividing the isthmus as the prostate rolls off from the bladder. To favor this I have used, with the ordinary deep lateral retractors and Sims speculum as a posterior retractor, the hooks shown in Figs. 10 and 11. The hooks are utilized, 1, to draw the prostate into the field and retain it there; 2, to evert the prostate while it is being detached from above downward from the bladder wall.

It is entirely unnecessary in the operation of prostatectomy to remove the whole anatomical structure, as is claimed by Freyer,[18] as the anterior portion of the prostate, or isthmus, never shows any material encroachment and never produces urinary obstruction. It can, however, be as easily removed, if the entire enucleation be desirable, by the perineal route as by the suprapubic, if the hook retractors be used as in the drawing. The

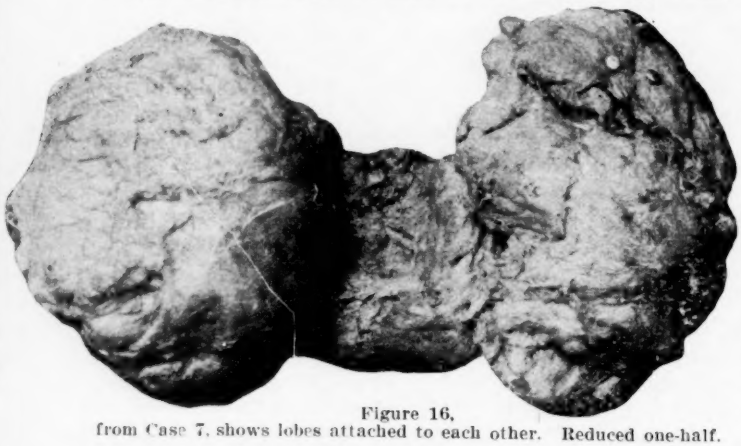


Figure 16.
from Case 7, shows lobes attached to each other. Reduced one-half.

hemorrhage is very much less by the perineal than by the suprapubic route.

CASE 1.—Mr. E. W. W., aged 55; occupation, financier; was referred by Drs. Henry Hooper and Archibald MacLaren. He was admitted to Mercy Hospital May 16, 1901, and operated on May 18, 1901. He was discharged June 26, 1901. Family history was negative.

Personal history: He has had specific urethritis; stricture followed; cured.

Present illness: Three years ago he began to suffer from increased nocturnal micturition, not associated with pain. This continued increasing in frequency and rest at night was much disturbed; then the frequency of urination in daytime became markedly increased. Finally, about two years ago, the catheter was first resorted to, which was used only every second or third day in the beginning. The vesical irritation, however, became greater and the quantity of pus in the urine increased until daily vesical lavage was resorted to by the attending physician, the catheter being used several times a day for the relief of urinary retention. A portion of the urine could be voided by strained efforts, leaving about three ounces of residual urine. These symptoms continued up to time patient was admitted to the hospital; he was entirely incapacitated for work.

Examination: Urine examined shows a trace of albumin, some blood and a large amount of pus. Urea, 1.8 per cent.; sp. gravity, 1024. With difficulty a sound was introduced into the bladder. Prostate was very much enlarged; left lobe largest, median lobe pressed markedly backward. Patient is emaciated and very neurotic.

Operation: Usual preparations; saline cathartic and enema. 1. Lithotomy position. 2. Ferguson's prostate staff introduced into bladder. 3. Fuller's semilunar incision in perineum, through perineal tissues up to membranous urethra, extending laterally to rami and from lower margin of scrotum in center to level of anus at external ends. 4. With finger in rectum, tissues between urethra and rectum were incised sufficiently to bring prostate well into view and free it entirely from rectum. 5. Prostate was pressed well downward and forward by means of staff in bladder. Capsule of right lobe was divided parallel to urethra and shelled off; right lobe grasped with volsella and carefully drawn down and dissected until the dissecting finger passed over the base, and then the prostate was liberated from bladder, from base to apex of lobe, and amputated. 6. Left lobe was treated likewise; a small rent was made in the prostatic urethra during the dissection. 7. Two small median lobes were then shelled out. 8. Tube placed in bladder through perineal opening and soft rubber catheter inserted through penis; cavity packed with gauze. 9. One side and apex of incision sutured with silkworm gut. 10. Hemorrhage was slight. 11. Dressings and bandage.

Patient returned from operating room, pulse 82, complained of some smarting pain; was placed in a semi-sitting position, 40 degrees.

May 19: Pulse was 96, temperature 99.6. Patient rested fairly well during night; no hemorrhage to speak of. May 20: Pulse 90, temperature 100; rested fairly well. Good drainage through both catheter and perineal tube.

May 28: Pulse 88; temperature normal since May 20. Urine passed through tube 715 c.c., alkaline, sp. gravity 1015, cloudy; few hyaline casts, round, oval and spindle cells. Numerous red blood corpuscles. Pus cells numerous; bacteria present. May 29: Pulse 88, temperature 98.2. Tube became obstructed and catheter also; latter was removed.

June 1: Pulse 98, temperature 100. Considerable pain in lumbar region. Tube removed and permanent catheter inserted. Patient has a mild pleuritic friction sound. June 4: Pulse 86, temperature 98.6. June 7: Pulse 80, temperature 98.6.

June 9: First voluntary urination through urethra; the day following practically all urine passed through this channel; full control, and painless. Patient is doing well; sitting up. June 17: Pulse 76, temperature 98.6. Patient is sitting up daily; 1320 c.c. urine voided in last 24 hours. Perineal wound healed. June 23: Pulse 78, temperature 98.6; patient went for a drive; feeling well. Amount of urine collected in 24 hours, 1375 c.c.

June 26: Pulse and temperature normal. Patient was discharged feeling well; has good control over bladder; urinates every two to four hours in daytime, but is not disturbed at night; no residual urine. Urine: sp. gravity 1005; urea .9 per cent.; no albumin; granular renal cells; few pus corpuscles. Not the slightest pain in urination.

February 4, 1902: Patient has perfect urinary control; can sleep the entire night without urinating. He says his urinary apparatus feels like it did when he was a boy.

CASE 2.—Mr. J. S., married, aged 54, merchant, was sick seven years; diagnosis of prostatic hypertrophy.

He was admitted to Mercy Hospital July 3, 1901, and operated on July 13.

Family history: Father died of tumor in throat in 1861. Personal history: Patient was born in Germany, but lived 44 years in America. General health was always good; appetite good, bowels regular.

Past illnesses: He had an infection in arm when 16 years old, and has running sore at present as result of same; chronic dysentery in 1865.

Present illness: For past seven years patient has been troubled with painful urination and inability to empty bladder. For past five years there were times when patient could urinate quite freely, but cold or exposure would make it extremely difficult. Two years ago he began catheter life, continuing it for thirteen months. He then received some electric treatment and dispensed with the catheter, although urination

was very difficult and painful. Early this spring the symptoms increased in severity. He resorted again to the catheter, passing considerable pure blood at times. Patient states that as far back as seventeen years his bladder has been weak, and he did not have proper power of expulsion; has suffered extremely in an effort to abandon the catheter, using it but once in three weeks. The prostate is very much enlarged and almost fills the pelvis.

July 12: Chemical examination reveals a trace of albumin. Microscopic examination shows pus in quantity. Residual urine 3½ ounces.

July 13: Operation after usual preparations. 1. Lithotomy position. 2. Ferguson sound introduced into bladder and held in position throughout operation. 3. Y-shaped incision as in Case 1, through perineal structures until prostate was reached. 4. Posterior broad Sims and narrow lateral retractors inserted; wound held wide open. 5. Circular incision through capsule of right lobe, which was shelled out from above downward by blunt dissection with the finger, the isthmus divided with scissors, and removed en masse. Same procedure for left lobe. 6. Middle lobe removed with scissors; posterior portion of prostatic urethra removed with gland. The bladder retained the urine and a large rubber tube was inserted into it through the perineum. Wound packed with gauze; tube secured to tissues with silkworm gut; permanent catheter inserted through penis into bladder. There was considerable hemorrhage from the left side, which was controlled by a 6-inch hemostatic, which remained for twenty-four hours.

Patient returned from operating room in good condition; pulse 104, temperature 97.4; strychnia sulph. and spts. amm. arom. were the only medication. See Fig. 13, Case 2.

July 15: Temperature 100.8, pulse 90, sixty hours after operation, then normal until July 26. Occasionally an infusion of triticum with cathartics sufficient to keep bowels open, and general diet. July 23: Perineal drain removed. July 25: Catheter removed. August 1: Temperature 102, pulse 120; patient in great pain, caused by a mild epididymitis.

August 3: Temperature dropped to 99.2, pulse to 100. Patient passed some urine through urethra. Aug. 9: Passing all urine through urethra and can hold it as long as two hours. Perineal wound closed. Aug. 12: Tempt. 99, pulse 100. Night sweats. Amount of urine, 700 c.c. Sp. gravity, 1017; urea 2 per cent.; trace albumin. Some squamous epithelium; some pus cells. Testicle still painful and somewhat swollen. Aug. 18: Tempt. normal, pulse 80.

August 22: Patient is discharged, with full control of urine and practically no pain in urination; Dr. R. H. Foster of Le Mars, Ia., reports as follows, Jan. 30, 1902: "The muscular fibers of the bladder have completely regained their lost tone, and he can propel the stream to a normal distance. The frequency of micturition, especially at night, has disappeared to such an extent that during the past three months he has not had any call to get up at night except while suffering from the orchitic attack, which I mentioned to you in my former letter. The power of retention has returned to a normal condition; also the lumen of the stream, which is remarkably full in volume and is neither flattened, forked or twisted."

CASE 3.—Mr. A. J., aged 67, merchant, was sick 2 years. He was admitted to Mercy Hospital Aug. 24, 1901, with diagnosis of prostatic hypertrophy and cystic calculi. Family history is negative. Personal history: Suffered severely from constipation. Past illnesses: He had malaria in 1860, and sciatica at intervals for past ten years.

Present illness: Began two years ago with frequent desire to urinate and vesical tenesmus; burning in perineum, hypogastrium and glans penis, which was relieved on urinating. Patient has been compelled to use catheter at intervals for past nine months. Three months ago a few drops of blood appeared at the end of urination. In the past few weeks patient has suffered severely from vesical spasm, which was not relieved by emptying the bladder. The prostate is very much enlarged. Stone detected.

August 24: Reaction of urine acid; sp. gravity 1013, small amount albumin; urea 1.4 per cent. Microscopic; epithelium, a few squamous cells; many red blood cells; pus in quantity. Residual urine 10 drams.

August 25: Operation, following usual preparations. 1. Lithotomy position. 2. Ordinary steel sound introduced into bladder and kept there. 3. Incision as in previous cases. 4. Prostate exposed and rectum entirely freed. Right lobe of prostate brought into view; capsule incised parallel with urethra and right lobe enucleated, drawn down with volsella forceps and removed. Left lobe with portion of urethra then removed; middle lobe was easily enucleated. 5. Forceps introduced into bladder and stone removed without difficulty. 6. Rubber catheter introduced through urethra into bladder and secured. Large rubber tube introduced into bladder through perineum and perineal wound packed with subiodid bismuth gauze, to suppress the oozing. 7. Deep sutures of catgut to bring structures into apposition. 8. Interrupted silkworm gut sutures for partial closure of incision. 9. Dressings. See Fig. 12.

Figure 17, from Case 7, shows the lobes separated. Reduced one-half.

Patient returned from operating room in good condition. After nausea had ceased he was put on urotropin, 7 grains, t.i.d.; liquid diet.

August 27: Patient rested well; pulse 102, tempt. 101. Wound dressed; some oozing; bladder irrigated with solution of boric acid. Aug. 28: Pulse 80, tempt. 100; patient had some pain; wound dressed. Urine in bottle 720 c.c. Considerable urine lost on dressings. Aug. 29: Drainage free; patient easy; 900 c.c. urine. Aug. 30: Pulse 88; tempt. 98.8. Urine 1000 c.c. through tube.

August 31: Pulse 88, tempt. 99; patient delirious short time Amount of urine 2000 c.c.; reaction acid; sp. gravity 1015; turbid; urea 2.4 per cent.; albumin in quantity. Small squamous epithelial cells; few red blood corpuscles. Considerable pus; bacteria present.

September 1: Pulse 84, temperature 98.8. Patient rational; suffering pain and stinging sensation. Sept 4: Wound looks healthy. Pulse 80, temperature 99.6. Sept. 10: Pulse 78, temperature 98. Perineal sutures removed. Sept. 12: Pulse 70, temperature 100; perineal wound closing rapidly and looks healthy. Sept. 14: Patient had chill. Pulse 88, temperature 102. Syphon attached to catheter.

September 15: Pulse 80, temperature 98.8. Right testicle swollen, tender and painful; left epididymis indurated, which accounts for chill yesterday. Applications of ice. Scrotum suspended. Sept. 16: Pulse 78, temperature 99. Urotropin, grains 5, t.i.d. Swelling in testicle reduced. Urine examination: Sp. gravity 1015, clear; urea 2.2 per cent; numerous pus cells, otherwise normal. Sept. 22: Pulse 78, temperature

100; patient rested well. Urine ceased to pass through perineal wound, allowed up daily. Nov. 7: Pulse 72, temperature 99; some pain but has control of urine. An abscess formed in perineum which required drainage.

CASE 4.—Mr. W. S. M., aged 58, married, farmer, was sick 8 years. He was admitted to Mercy Hospital Nov. 4, 1901.

Family history: Father died of rheumatism and heart complications at the age of 49 years. Mother died of Bright's disease at the age of 68. One sister died of throat and lung trouble, probably tubercular.

Personal history: Always moderate user of whiskey. Beer always seemed to aggravate present trouble. About nine years ago began to get up to urinate at night, but for last three or four years has been getting up three or four times; would pass small amount of urine each time. During first few years of the trouble urine showed heavy brick-red deposit on standing, but of late years has been clearer, with more offensive odor. Past sickness: Has had a right side inguinal hernia since 21 years of age; has had hemorrhoids for many years, but they have been worse since present trouble began, due to constant straining on urination.

Present illness: Patient was thrown from a horse and fell astride a ridge of dirt in the road, eight years ago. There was considerable tenderness in the perineal region after this injury. Skin was not broken, but parts were bruised. He was put to bed; had chills and fever for next twenty-four hours. He only remained in bed for a day or so and passed his urine,

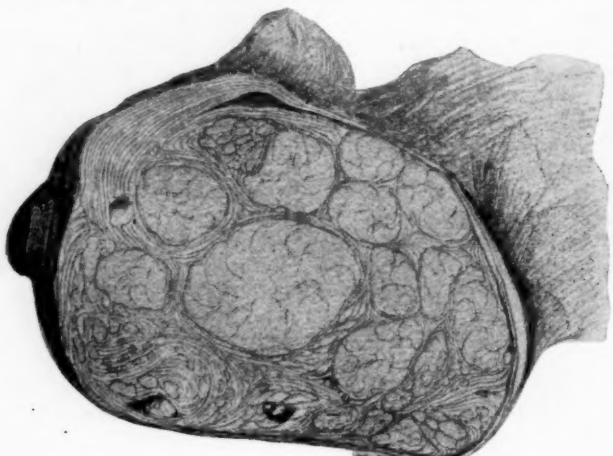


Figure 18 shows transverse section of right lobe from Case 7, illustrating the numerous small myomata in the upper portion and the hyperplasia in the lower.

at the time, with effort. There was no blood in urine, nor in stools. Since that time he has been troubled almost constantly with bladder trouble. There has been vesical tenesmus when on feet; if in bed he can hold urine longer. Patient can start flow of urine without much pain, but at the end of the act there is a dull burning and a dribbling for some time. When trying to hold urine any length of time there is a sudden loss of half an ounce or so before he can control it. For a long time patient has had a cutting pain in end of penis when through urinating. The straining at the end of urination brings down a small tumor mass in the rectum not unlike a hemorrhoid. All of above symptoms have been getting worse for past four or five months. He was catheterized but once, and that last summer, by a home physician, to see if there was retention of urine. He never has had any chills or fever since injury, eight years ago. Patient has never been confined to bed, but has never been able to work; for, as soon as he walks or rides, he has the desire to urinate, with the pain following. State of nutrition good; appetite good; bowels constipated. Examination: Prostate enlarged to second degree; stone detected behind the prostate.

November 6, 1901: The patient was prepared for operation in the usual manner: A sound revealed size of stone in the bladder; the prostate was very much enlarged. Technic same as in previous cases, except the staff was dispensed with after the capsule was exposed, and the prostate drawn forward with the hooks shown in Fig. 8. The hooks were found of great assistance, as they permitted an easy separation of the base of the prostate from the bladder, and rendered the staff needless. The stone was extracted after the removal of middle lobe. See Fig. 14.

November 6: Nothing to record but an intermittent pulse, which quickly responded to strychnia. The highest temperature and pulse rate were 101.4 and 104 respectively. Nov. 7: Patient rested well; complained of some pain in bladder. Average temperature and pulse same as previous day. Nov. 10: Patient resting well. Temperature 99.6, pulse 89; urine 600 c.c. through tube. Nov. 11: Temperature 98.8, pulse 93; wound dressed with dry dressing; saline cathartics. Urine 690 c.c.

November 12: Temperature 100.8; pulse 99. Patient resting well; packing removed; no pus; catheter irrigation; all drainage found free; scrotum somewhat edematous; left testicle enlarged and tender; right slightly enlarged.

November 13: Temperature 101.5, pulse 97. Bladder irrigated. Perineal drain removed Nov. 14: Temperature 99, pulse 82. Drainage free; urine 900 c.c. Nov. 15: Temperature 98.6, pulse 83; resting. Urine 100 c.c. through catheter. Nov. 16: Temperature 98.9, pulse 81; patient perfectly easy; urine 2160 c.c. Nov. 17: Temperature 99, pulse 76. Resting. Catheter removed.

November 20: All urine passed through urethra. Perineal wound practically closed. Dec. 4: No vesical pain; he can hold urine four to six hours, and does not have to get up at night. Microscope reveals small number of pus corpuscles in urine.

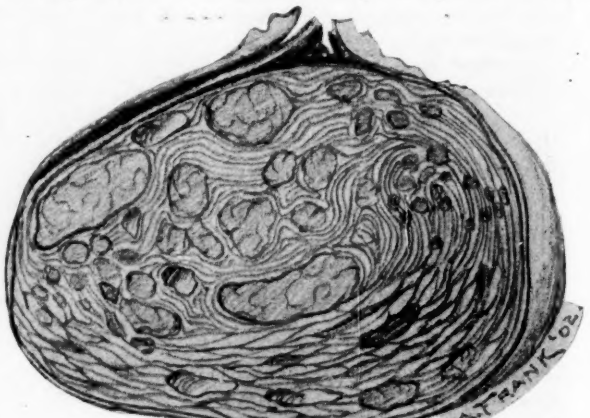


Figure 19, drawing from cut surface of middle lobe of prostate from Case 7, showing about the same histologic structure as the lateral lobe with distinct loosely attached capsule.

CASE 5.—Mr. P. T., aged 62, retired farmer, was sick 4 years and admitted to Mercy Hospital Dec. 2, 1901.

Personal history and previous illnesses: Usual diseases of childhood. Malaria many years ago. La grippe seven years ago, since which general health has not been as good as before, though fair. Appetite is good. Bowels somewhat constipated for past four years. No bladder nor kidney symptoms previous to present trouble. Venereal history is negative.

Present trouble: About four years ago patient began to have frequent urination; four times nightly, latterly eight or ten times; small amount of urine passed each time; total amount of urine passed was probably normal. Was treated by irrigation of bladder and local applications of electricity. Took diuretic tablets. About three years ago was unable to urinate and had catheter passed, but has not needed catheterization since until ten weeks ago, when he catheterized himself and has done so several times since that time. For past ten weeks he has irrigated his own bladder daily or oftener with boric acid in boiled water. About eight weeks ago he caught cold and had two quite severe chills followed by temperature of 103 to 104 lasting a day or two, and was confined to bed a week or more. Two days ago patient had slight chill and temperature of 100. Patient complains of no severe pain, but has had some discomfort about perineum and pain running into penis, aggravated by walking, standing and sitting. He has less discomfort when he drinks much water:

has burning pain on urination, especially when passing small amounts of concentrated urine; has noticed brick-dust sediment in urine at intervals; has not noticed pus.

December 3: Pulse 84, temperature 98.8; 250 c.c. urine during night. Bladder irrigated with 1 per cent. sulpho-carbolate sodium in 1 to 4000 sol. formalin. Uranalysis: sp. gravity 1016; urine turbid; urea 2.4 per cent. Phosphates increased; indican present; no casts or albumin; many pus cells.

December 10: Bladder has been irrigated daily since admitted. Tonics and diuretics administered, also urotropin. The prostate extends backward, pressing the rectum, and the lobes seem to fill the pelvis to the rami on either side. A stone was detected.

December 11: Operation: 1. Ether anesthesia; lithotomy position. 2. Inverted Y-incision in perineum from posterior fold of scrotum to the rami, on a level with anus. 3. With finger in rectum, the perineum was divided on either side of the corpus cavernosum until the prostate was reached and then the central septum was divided. Beak lateral retractors and Sims posterior retractor were used to expose the field of operation. 4. Capsule of gland incised parallel with urethra and separated from gland by blunt dissection, with finger and Kocher dissector. 5. Right lobe is grasped with small hook retractor and drawn down and out, and then grasped with second hook retractor and rolled forward and separated from the bladder down to the isthmus, where it was divided; left lobe treated in like manner. Middle lobe removed, with small portion of posterior prostatic urethra. Anterior isthmus not disturbed. The stone was then removed with a lithotomy forceps. 6. Rubber drainage tube passed into bladder through perineal opening; this was surrounded with bismuth subiodid gauze as a packing. 7. Wound closed except on left side with silkworm gut; left side left open for passage of tube and gauze. 8. Dressings and bandages.

Patient returned from operating room and was placed on back rest at angle of 30 degrees. Pulse was 78, low tension; temperature 97.4. He rested quietly and comfortably. Syphon and bottle were attached to drainage tube in perineum. Photograph of prostate, Fig. 15, Case 5.

December 12: He rested very well; pulse 96; temperature 99.4. He drinks considerable water. Dec. 13: Pulse 88, temperature 99. Patient is drowsy and comfortable. Dec. 14: Pulse 82, temperature 99.2; quite comfortable; free drainage.

December 15: Pulse is 84, temperature 98.4. Patient quite comfortable. Dressings changed three times; some of the packing removed. He voided 1530 c.c. urine through tube, and slept well. Dec. 16: Pulse 88, temperature 98.8. He voided 900 c.c. urine through tube. Slept ten hours; feels quite comfortable. Dec. 17: Pulse 88, temperature 99; 1200 c.c. urine through tube. Slept ten hours. Dec. 19: Pulse 80, temperature 99; 1500 c.c. urine through tube. Perineal tube and packing removed. Slept ten hours.

December 22: Pulse and temperature were normal since 19th. Catheter passed through penis. Passes small portion of urine through urethra. Wound in excellent condition. January 1: Catheter with stylet passed. He passes urine by both perineum and urethra. Jan. 5: Wound is healing rapidly. No urine passes through perineum. He is up and walking around room. Patient feels quite well; has control of urine. Jan. 18: All urine passes per urethram; full control. Patient is discharged feeling quite well; can sleep all night without urinating. Urine acid, sp. gravity 1014; trace of albumin; some pus corpuscles.

CASE 6.—Mr. L. D. R., aged 70, widower. Father died at 88 of strangulated hernia. Mother died at 66 of cancer(?). Two brothers died of prostatic disease, with complications, aged 77 and 82. One brother died of pneumonia at 77. Four brothers living and in good health, aged 60, 64, 73 and 77. Three sisters died of female diseases, ages 50, 52 and 53. He has three sisters living and in good health, ages 60, 68 and 75. He came under observation of Dr. F. A. Turner, Sandwich, Ill., September, 1901, with symptoms of prostatic inflammation, which continued for several days until there was a free discharge of pus from rectum, when the symptoms subsided. He did not see him again until Nov. 11, 1901, when present attack began with severe pains in the prostate and a constant desire to pass water, being able to void but small quantities of turbid urine which contained considerable pus. On November 14 complete retention came on, and, notwithstanding the fact that a large amount of pus was discharged from rectum on night of 14th, the retention continued complete until the 22d, the date of the operation. He was catheterized every three or four hours. Amount of residual urine not obtained.

Operation was made December 20. Technic was same as in previous operations. Abscess was found in left lobe. Both lateral lobes were very much enlarged. Lateral and middle lobes were removed.

Post-operative history (kindly furnished me by Dr. Turner): During first six days after operation pulse varied between 114 and 99; temperature between 99 and 97.6; 1/30 gr. strychnia was given hypodermically every four hours. Liquid diet given every two or three hours. Bowels tympanitic and greatly distended during this period, for which he was given tinct. menth. pip. and asafetida, each 1 oz., in 3 pints of water through colon tube, with good results; this was repeated as required.

Bladder was irrigated daily through the drainage tube and the iodoform packing was removed on the sixth day. From the sixth to fourteenth day pulse and temperature were normal. Pus discharged freely from the tube, which was removed on the fourteenth day. Daily irrigation was continued and a fresh piece of iodoform gauze was inserted after each washing. Eight hours after the tube was removed (fourteenth day) he urinated per urethram. Strychnia was given per mouth up to the 20th, when it was stopped.

On December 20 urine passes through urethra and the bottom of the wound is apparently healed. The external portion of the wound is still kept open with a small piece of iodoform gauze. Urine is still turbid; contains pus and is ammoniacal; sp. gravity 1010. During the first week following operation there was a double epididymitis, which was relieved by elevating the scrotum and applying hot fomentations. Dec. 24: Patient is sitting up now and taking solid food. Jan. 5, 1902: Since last letter there has been a free discharge of pus from perineum.

January 16: "The wound in perineum has completely closed. He has control of his urine, which is clear and free from pus. He is not disturbed at night, and has fully recovered. I discharged him Jan. 14, cured."—Turner.

CASE 7.—Mr. C. G., aged 52, laborer, single, was admitted to Cook County Hospital Dec. 7, 1901.

Previous history: States he was perfectly well up to four days ago.

Present illness: Four days ago began having a dull pain in abdomen, which gradually increased until he was compelled to quit work and go to bed early in evening; could not sleep that night; next morning vomited three or four times. He has had no appetite since then and "has not been able to keep anything in stomach." About the time he began vomiting he commenced having trouble in urinating; would have desire to urinate, but could evacuate only a very small amount, after severe straining. This desire to urinate would come on a dozen times daily, always with same result. Says he never had previous urinary trouble of any kind. Denies all strictures, gonorrhea, etc. Bowels have not moved for four days. There is no pain in penis; no cough; no pain in chest; no headache or epistaxis.

On closer questioning admits gonorrhea several times and says he has had a stricture. Statements seem unreliable. Denies syphilitic infection. Denies all previous illness. He was hard drinker for thirty years; smokes to excess now. Friends of patient say that recently he has been having "flighty" spells. Patient, himself, says he is "silly" at times and has been since his parents died, thirty-five or forty years ago.

Examination shows man past middle age; poorly nourished; in no apparent pain; indifferent to surroundings; mentality poor, so that little dependence can be placed upon his statements. Pupils equal, but retract slowly to light. Teeth covered with sordes; breath foul. Chest: heart and lungs negative. Tumor mass extending from pelvis above umbilicus, half way to ensiform; appearance that of seven months' preg-

nancy; uniform dulness over this mass; no fluctuation obtainable; surface smooth; auscultation negative; tumor disappeared after catheterization. No stricture; slight urethral discharge, in which are gonococci. A very much enlarged prostate, sensitive to pressure but not fluctuating. Has all the external manifestations of an intense cryptogenic infection. Patellar reflex is increased; ulnar reflex diminished.

December 7: Catheterized 11 a. m.; 64 oz. urine obtained; 5 p. m. 58 oz., 11:30 p. m. 52 oz. Dec. 8: Catheterized noon, 45 oz. urine. Temperature 98.4, pulse 68. Dec. 9: Catheterized, 32 oz. urine obtained. Permanent catheter put in. Urinalysis: Sp. gravity 1018; reaction acid; no albumin or sugar. Leucocytes numerous; granular and hyaline casts of large size. Dec. 10: 38 oz. of urine removed. Permanent catheter removed.

December 12: Gonococci found in smear from urethral dressings. Nothing of consequence to note up to date of operation. Patient was repeatedly catheterized and was kept on general diet with frequent saline cathartics. Temperature and pulse ranged near normal, but presented all the time a low, typhoid condition, apparently from some hidden sepsis.

Operation was performed December 20. 1. Lithotomy position. 2. Semilunar incision from one ramus of ischium to the other. 3. Skin reflected from apex of incision down almost to rectum, leaving triangular denuded space. 4. Fascia divided in median line down to urethra and prostate, which are

Case 7 (*a*).—Right lobe shows hypertrophied prostatic tissue firmly attached to the myoma, also the feeble attachment of the middle to the lateral lobe.

located by sound held firmly in urethra. 5. Rectum separated from urethra by blunt dissection and held down by Sims speculum. 6. Right lobe of prostate dissected free, capsule peeled back and sharp hook fastened into prostate; traction and blunt dissection used simultaneously, additional hooks taking fresh holds as the lobe rotated outward; separated from isthmus with scissors. 7. Left lobe excised in same manner, each being about the size of a duck's egg. See Fig. 8. 8. Middle lobe, size of walnut, easily shelled out, tearing posterior urethra, escape of urine. 9. Rubber tube put through this opening into bladder, packed around with gauze, and skin partly closed with silkworm gut sutures. 10. Dressings and bandages.

December 20: Patient returned from operation with pulse irregular and weak; respiration shallow—sighing. Skin warm and dry—cyanosed. Temperature 101, pulse 98. Strych. sulph. grain 1/30, twice daily. Figs. 16, 17, 18 and 19.

December 21: Patient rested fairly well during night. Liquid diet. Pulse 98, temperature 99. Pot. acet. grains 10; urotropin grains 5, twice daily. Dec. 22: Patient slept most of night. Temperature 100.4, pulse 104. Dec. 23: Patient resting well; pulse 98, temperature 99.4. Dec. 24: Patient slept fairly well during night. Pulse 96, temperature 99.4. Dec. 25: Pulse 96, temperature 99. Dec. 26: Pulse 100, temperature 101. Dec. 27: Patient slept only at intervals during night. Temperature 101, pulse 100. Dec. 28: Temperature 101, pulse 102. Perineal drain removed. Dec. 29: Slept but little during night. Refused medicine. Temperature 100.4, pulse 100. Dec. 30: Did not sleep during night. Temperature 100.4, pulse 100.

December 31: Slept fairly well during night. Temperature 99, pulse 88. Strych. sulph., grain 1/30. Pot acet., grains 10; urotropin grains 5, twice daily; light diet. Catheter passed through urethra; bladder empty. Jan. 1, 1902: Patient slept fairly well during night. Temperature 99.4 pulse 98. January 2: Rested fairly well during night. Podophyllin et calomel, each gr. ½. Temperature 99, pulse 98. Light diet. Jan. 3: Temperature 98.8, pulse 88. Jan. 4: Slept at intervals only. Temperature 98, pulse 96. Jan 6: Permanent catheter. Jan. 10: Catheter removed; perineal wound almost healed and urine passed through urethra. General condition about the same as before the operation. All vesical symptoms disappeared.

CASE 8.—Mr. H. H., aged 66, wood-worker, was admitted to Mercy Hospital Dec. 16, 1901. Family history is negative. Personal history: Patient has always enjoyed good health until present illness, with the exception of a month's illness with bowel trouble twenty years ago. Patient's work has not been especially heavy, but it has been often in unheated rooms. Drinks wine and beer occasionally. Venereal infection denied. Constipation since onset of present trouble.

Present illness: Ten or fifteen years ago patient began to have frequent urination, passing only small amount each time. Some discomfort and a feeling that the bladder was not empty often followed urination. This condition was intermittent; was less common in summer than in winter, and was aggravated by exposure and by constipation. This continued, gradually becoming more annoying last summer. It was characterized by more discomfort than ever, and increased frequency of urination. Three weeks ago patient passed some blood, clotted and fresh, with his urine; was unable to pass water for a week thereafter, and catheterized himself from that time until now. The blood has disappeared, and he can not empty his bladder without catheter, there being about five ounces of residual urine. He urinates every two or three hours during the day and rises many times during the course of the night.

December 17: Urinary examination shows sp. gravity 1017; urea 1.5 per cent.; few flat and round cells, considerable mucus; pulse 72, temperature 98.4. Dec. 19: Urine in 24 hours 1500 c.c., reaction acid, sp. gravity 1020; turbid, urea 1.3 per cent.; faint trace of albumin; few squamous cells and pus in quantity. Prostate very much enlarged, particularly on left side.

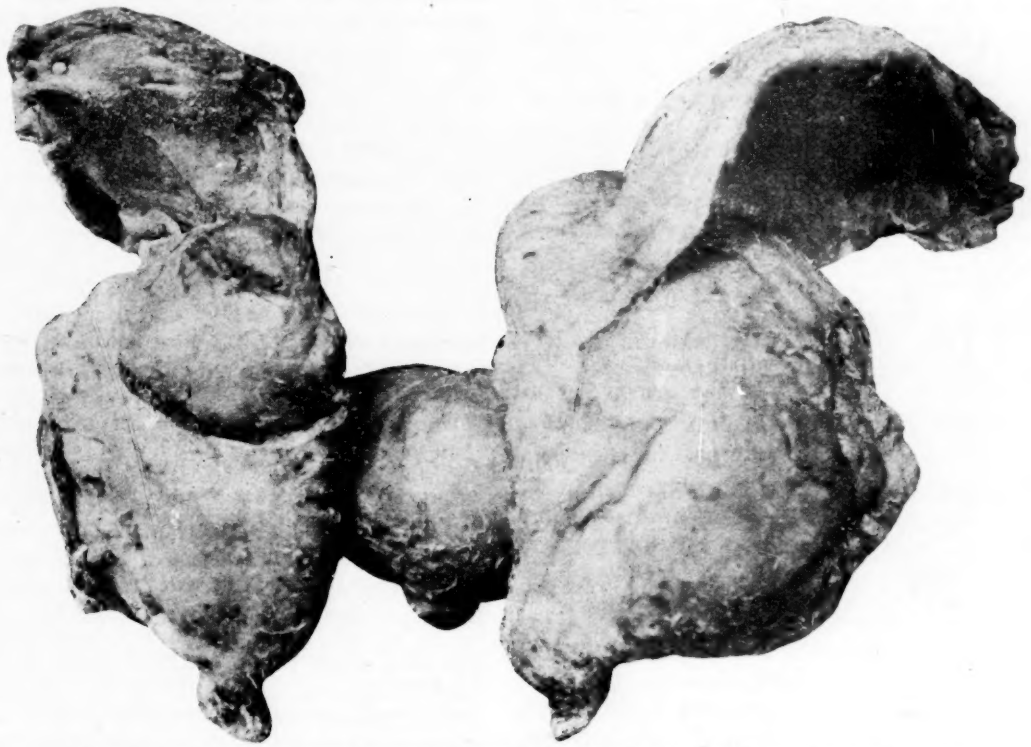
Operation on January 8; usual preparations; ether; lithotomy position. 1. Inverted Y-incision in perineum from junction of posterior fold of scrotum back to the rami at a level with the anus. 2. Rectum pushed back away from prostate with finger and deep retractors used to expose field of operation. 3. Capsule of gland incised parallel with urethra and separated from gland by finger and blunt dissection. 4. Right lobe grasped with small hook retractor and drawn down and out and then grasped with second hook retractor; rolled out from behind forward and separated from the bladder with the finger, and isthmus divided. Left lobe was treated in like manner. Middle lobe was shelled out and removed, with posterior wall of prostatic urethra; isthmus not disturbed. 5. Rubber drainage tube passed through perineum into bladder. Soft catheter passed into bladder through urethra. Strips of bismuth subiodid gauze packed around perineal rubber drainage tube. One hemostatic was allowed to remain. 6. Wound closed except on left side by silkworm gut. Left side

left open for passage of drainage and gauze. Catheter sutured to penis with silkworm gut. 7. Dressings and bandage. There was a moderate amount of hemorrhage. Patient returned from operating room warm and in fine condition. Back rest was placed under patient at angle of 30 degrees. Pulse 78, temperature 97; slight nausea, free perspiration. Prostate about same size and shape as Case 5, Fig. 15.

January 9: Considerable discharge of urine, some blood. Pulse 88, temperature 99.2. Tubes arranged from catheter and drainage tube to bottle. A portion of the packing was removed. Jan. 11: Pulse 80, temperature 98.4; tube and most of packing removed. Patient is resting comfortably.

January 14: Pulse is 80, temperature 99. Pulse and temperature have remained near normal since 11th. Perineal drainage tube and remainder of packing removed. Wound looks healthy. Urine passed voluntarily, principally by perineum. Patient comfortable, sitting up in bed most of the time.

January 16: Pulse 78, temperature 98.6. Urine passes through perineum. Patient rests well and feels comfortable. Jan. 21: Pulse and temperature normal; 270 c.c. urine in bottle. Wound clean and healthy. Jan. 23: Pulse and temperature normal.



Case 7 (b).—Left lobe, shows enormous hypertrophy of prostatic tissue around a small myoma.

Catheter removed; some urine followed through urethra; most of it passes through perineal wound. Patient sleeps well and feels comfortable. Jan. 28: Patient gaining control of urine; most of urine passes through perineum, but quantity through urethra increasing. Jan. 31: Patient can hold urine several minutes after desire to void is felt. Most of urine passes through urethra; small amount through perineal wound. Patient walking about and very comfortable.

February 4: Patient has walked to dressing room. Wound is closing; very little urine passing through it. Control of urine increases daily. Feb. 7: For past three days urine has been very well controlled; almost the entire amount passed through urethra. Occasionally a small amount is forced through perineal wound. Patient feels fine. Feb. 8: A few leucocytes are in urine; acid in reaction. He passes all urine through urethra and has good control.

CONCLUSIONS.

1. From the clinical reports and experience, it seems evident that in extreme cases prostatotomy is the operation of election.

2. It appears evident that in the hands of safe, far-seeing, informed practitioners, few cases will now be allowed to progress to this extreme condition before radical means are resorted to for permanent relief. The practice of to-day should be timely practice.

3. Continued use of the catheter is a menace to life, not to mention its discomfort, no matter how favorable the conditions for its performance. The patients all, sooner or later, suffer from cystitis and its sequelæ.

4. Prostatectomy gives the best permanent result, and is fraught with very little more danger than prostatotomy.

5. Suprapubic prostatectomy should be limited to exceptional cases of enormous intra-vesical enlargements of the prostate. It appears to us to endanger the sphincteric control more than the perineal operation. It is more sanguinary and the work is more difficult and distant from the operator.

6. The perineal is the most direct and least bloody route. It admits of a very large opening, and permits the prostate to be drawn quite into the open before it is attacked. It gives the greatest security against injury to the bladder wall and least liability to disturbance of the internal sphincter. It endangers the rectum least and affords the best drainage.

7. It can be best performed through a Y-shaped incision, with a Sims speculum for a posterior retractor. The prostate is drawn out easily with sharp hook retractors, and best separated from the bladder from behind forward. The operation should never be performed in the dark, i. e., through a small incision.

8. It should always be an intracapsular enucleation en masse, allowing the anterior isthmus to remain. The hemostasis may be secured with forceps or a packing of subiodid of bismuth (not iodoform) gauze. The permanent catheter should not be introduced until the perineal drain is removed.

9. The patient should be kept in a semi-sitting position for seventy-two hours after the operation, and

should be out of bed by the fifth day. He should drink large quantities of water from the onset.

10. Anesthetic is sub judice. Phosphate of sodium should be administeerd to keep the urine acid; and urotropin as an antiseptic. The personal equation must never be lost sight of in operating these cases, and attention to every small detail of the patient's general condition is necessary for the best results.

[I am indebted to Dr. E. F. Brandt, interne of Mercy Hospital, for the excellent photographs.]

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CASE OF TYPHOID FEVER

COMPLICATED BY A THROMBO-PHLEBITIS OF THE LONG SAPHENOUS VEIN, A SEVERE HEMORRHAGE FROM THE BOWEL, INFECTION OF THE CLOT, WITH RECOVERY.

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A young man, aged 20, of spare build, was seen in the writer's office Aug. 21, 1901. He complained of severe frontal headache, dizziness, ringing in the ears, pains in the eyes, loss of appetite, gurgling in the abdomen, backache, diarrhea, exhaustion and nose-bleed. The tongue was thickly coated, spleen and liver enlarged, gurgling and tenderness in the right iliac fossa, and some cough. Pulse was 72, temperature 102.5.

The patient was given a laxative, sent home to bed, and a sample of urine was ordered for examination. The following day he was seen at his home; temperature was 104, pulse 82 in the evening; urine showed the diazo-reaction of Ehrlich and a diagnosis of typhoid fever was made. Systematic cold sponging was practiced every three hours, a milk and beef juice diet was ordered, at the same time an intestinal antiseptic was continually given. At no time during the treatment was the temperature above 103, pulse ranging between 75 and 85. At the end of the fourth week the appetite became better and some diarrhea which was present all through the sickness, ceased, and convalescence became apparently established. Stimulants in the form of whisky and strychnia were given the patient as there was an altered first heart tone and a systolic murmur heard at the apex.

On September 17 the patient complained of pain in the left calf, which extended upwards along the inner surface of the thigh into the groin. The left testicle was also painful. The upper thigh was some swollen, and the long saphenous vein could be distinctly palpated from a little above the ankle to the middle of the thigh. There was no swelling of the limb below the knee. The spermatic vein presented the same condition as that of the limb; the testicle was not apparently affected. Coincidently with the formation of the thrombus, the temperature arose to 105.2, pulse 116.

The limb was enveloped in cotton and a roller bandage applied, and the testicle was supported. Four days after the onset of the phlebitis the temperature was 100.5, pulse 90; some pain existed in upper limb and along the spermatic vein.

In the afternoon of the same day he felt a fulness in the abdomen, saw various colors, was nauseated, sleepy and thirsty, was short of breath and desired to evacuate his bowels. He immediately passed into the bedpan, with much force, two liters of dark blood.

The hips were elevated, morphin and ergotin given hypodermically, ice to the abdomen and perfect quiet ordered. His condition was now one of acute anemia and normal salt solution was injected, a new rubber fountain syringe and an ordinary aspirating needle, which was sterilized by boiling in soda solution, being used. One liter was given under the skin on each side, the needle being inserted a little above and external to the nipple. The effects of the salt solution was quickly noticed, and in six hours the patient passed a full 16 ounces of urine and felt much better. The bowels moved spontaneously the third day after the hemorrhage. The temperature and pulse gradually fell, when one week from the day of his hemorrhage he had a pronounced chill, lasting 40 minutes; temperature 105.5, pulse 135. Profuse perspiration followed. The pain in the limb which had by this time nearly ceased, now became much worse, and varied in severity according as the temperature arose or fell, being worse as the temperature went up.

One week from the day of his first chill, a second came on, lasting as long and was as severe as the first, followed by the most exhaustive sweats; temperature and pulse arose as high as before. The temperature and pulse oscillated as before for ten days, when he had a third chill lasting not quite so long as the first two; sweats again followed. After each chill with rise of temperature the skin presented all over the trunk, especially on the lower abdomen and back, a fine pinhead pustular eruption, which gave the patient much annoyance on account of the itching and smarting. Frequent turning of the patient with bathing and rubbing with alcohol to prevent decubitus was practiced.

Iron, quinin and strychnia were given to help correct the anemia as well as a tonic and stimulant, with a liberal allowance of predigested milk, ice cream and broths, and finally the patient began rapidly to improve; the appetite returned, the temperature and pulse oscillating for one week, and finally became normal and frequently subnormal, when in nine weeks from his initial visit to the office, the patient was sitting up most of the time. He now feels entirely well, having worn a bandage for five weeks after beginning to walk, to help counteract the swelling. The distressing intestinal catarrh, from which he suffered previous to his sickness and which resisted all lines of treatment, is now entirely cured.

The case is interesting from the facts that an apparently moderate attack of typhoid fever is no criterion from which to deduce a prognosis; this case demonstrated beyond a reasonable doubt the value of the salt solution that was used to correct the acute anemia.

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THE PROPER ADJUSTMENT OF REST AND EXERCISE IN THE TREATMENT OF TUBERCULOSIS.

Whether or not we shall ever come into possession of a specific remedy for tuberculosis is a matter for the future to decide. That spontaneous recovery from this disease not rarely occurs is a matter of common observation, so that it must be admitted that under certain favoring conditions the invaded body is capable of generating antitoxic substances that aid in bringing about the result desired. As to the position that tuberculin occupies in this connection there is some doubt. In the hands of those who have used this preparation most faithfully and continuously and, therefore, it is to be assumed, most intelligently, the results have been most gratifying, but tuberculin is a powerful agent and it has shown its capability for evil as well as for good. In the absence, therefore, of a remedy possessing specific curative properties and susceptible of safe general employment, the clinician is forced to depend upon those natural resources by means of which the resistance of the organism to the activities of the tubercle bacillus is increased. The problem, it has been learned, is essentially one of nutrition, and the main factors in its solution are a proper adjustment of air, sunshine, food, rest and exercise. The principles underlying the application of the last two factors have been recently discussed in a practical manner by Dr. Naegelsbach.[1] Here, as elsewhere, there has been a tendency to go to extremes, while, as usual, the correct position is an intermediate one. The question must be decided in accordance with the conditions present in the individual case.

As a matter of course, when the disease is progressive the patient should, as soon as possible, be withdrawn from physical and mental activity and placed under conditions most favorable for rest. If the temperature is but slightly elevated, the patient may occupy the recumbent posture in the open air. Those patients also should be kept in bed who, despite a normal maximum temperature, exhibit in the morning or repeatedly temperatures of collapse, with evidences of advanced lesions and great asthenia. If the temperature, previously normal, rises gradually or suddenly the patient should be put to bed. If in the course of a period of such rest it be found that the patient can lie upon a reclining chair without elevation of temperature he may gradually be brought into the open air. It is necessary, however, that there should be also absence of chills, sweats, marked prostration and exhaustion and increased cough, of recent inflammatory changes in the lungs and other organs and of loss of weight. In cases of softening with intermittent or remittent fever and normal or approximately normal morning temperature the most rapid results, in accordance with the course of the morbid process, are brought about by rest in bed. Care is necessary on account of the danger of hemorrhage. Transitory slight elevation of temperature is naturally of less significance than elevation persisting for hours.

When the temperature declines regularly in the evening a few tenths from 98.5 or 99 F. the patient may be permitted to remain out of bed until after the evening meal. If the evening temperature remains unchanged or even rises, complete rest in bed in the afternoon should be enjoined. When the temperature is slightly inverted, rest in bed should be continued for a longer time in the morning. In cases in which there is slight elevation of temperature in the absence of evidence of active disease, as, for instance, in patients with old pleurisy or chronic bronchitis or large old cavities, rest on a reclining chair will suffice. Patients with large cavities must exercise greater care than those with so-called apical catarrh; as must also those in whom active lesions are present, especially if attended with many moist râles, as well as bleeders, whether from peculiarity in the local process or from hemophilia. In the presence of hemorrhage to greater degree than blood-streaked sputum, rest in bed should be observed, as a rule, although occasionally the bleeding ceases after the patient gets up and moves about carefully. Beginning pleuritis also demands caution. Rest-treatment will be especially indicated in the case of debilitated, anemic, chlorotic and neurasthenic individuals.

When the patient is permitted to walk he should stop before he becomes tired, should avoid the occurrence of perspiration, should set no limit to his walk so that if possible he makes ascents while fresh. The time for the walk and its length should be determined for the individual case. A patient who has become wholly apyretic may tentatively walk for a quarter of an hour at about 8:30, 11:30 and 4:30, and in the course of a week or two the time may be increased to an hour—that is, three hours a day. Patients with extensive lesions and with fresh cavities should advance more slowly. Greatly emaciated patients who exhibit little tendency to increase in weight should walk but little. Rest should be taken in the intervals of walking and for 20 or 30 minutes before meals. In cases of bronchiectasis, walking up gentle grades is of value to facilitate expectoration. Such walking in moderate degree regulates and strengthens the action of the heart in all cases and frequently ameliorates bronchitis, while strain on the heart does the reverse. Walking should, of course, be interdicted whenever it induces elevation of temperature. In cases in which the morbid process has terminated or in which there is no evidence of secretion careful respiratory gymnastics may be practiced with advantage if the

1. Berliner Klinische Wochenschrift, Feb. 24, 1902, p. 163.

breathing be not full and if pleural adhesions are present. Other forms of physical exercise and eventually some agreeable occupation may be cautiously indulged in as improvement progresses. So far as possible the patient should be spared emotional disturbances such as may result from the responsibilities and activities of domestic life. In the presence of fever even the visits of friends should be interdicted. A certain amount of mental stimulation and recreation is, however, to be generally encouraged.

FAMILY PERIODIC PARALYSIS AND ALLIED NEUROSES.

The close study of cases of disease which have at first appeared to be identical has often led to a separation of the original clinical entity into two or more distinct diseases each having its own peculiarities. Since Bretonneau wrote his classical memoirs on diphtheria this disease has been recognized as one entirely separate from other pseudo-membranous inflammations of the throat, and with the aid of modern bacteriologic methods the differentiation of the various forms of angina upon an etiologic basis has been carried still further. Exhaustive study has always been fruitful in the separation of diseases which were previously confused. On the other hand, the thorough study of individual clinical diseases has often resulted in the discovery that what had appeared to be entirely different conditions may have much in common and may even be different phases of the same general disease. This is exemplified in a group of paroxysmal neuroses of which migraine and epilepsy are the more common members, and family periodic paralysis the unusual one. In a recent report of the first case of family periodic paralysis observed in England, Singer[1] has again directed attention to this peculiar and rare disease. Although cases had been previously reported in Germany, Taylor,[2] in 1898, was the first American writer to treat the subject in a thorough manner. He collected all the cases that had been described earlier, which with his own made a total of 53; of these, 16 have detailed records. A striking feature of the disease is heredity, 35 of the 53 cases collected by Taylor having occurred in 3 families. It has been followed through five generations and is transmitted through both the male and female lines. The clinical manifestations occur in distinct paroxysms at irregular intervals between which the patient is apparently in perfect health. The attack most often comes on during the night, the patient waking in the morning with inability to move. The voluntary muscles are involved almost exclusively and in varying degrees. The paralyzed muscles are flaccid and do not respond to electric stimulation and the reflexes are lost. There is no impairment of the mental faculties and sensation remains normal. The duration of the attack is usually from six to seventy-two hours, after which time the paralysis gradually disappears and the reflexes and electric excitability return. The paroxysms have usually first occurred at about puberty and have gradually disappeared between the ages of forty and fifty.

Since Taylor wrote upon the subject, cases have been reported in America by Mitchell[3] of Philadelphia, Putnam[4] of Boston, and Crafts[5] of Minneapolis. Various theories have been advanced to account for the symptoms. A toxic substance which causes the disease has not been proven to exist, although sought for in the urine and feces. Putnam advances the idea that "the symptoms are probably due to the morbid over-action of an influence which, though hitherto but little recognized, probably plays an important part in all the operations of our lives, and which has been designated as "inhibition." Meltzer[6] defines inhibition as a temporary diminution or abolition of a vital activity brought about by an external or internal stimulus. According to this theory all irritable tissues of the living body respond to a stimulus with a specific activity, as well as with an inhibition of this activity, the actual effect of a stimulus being always only a resultant of the two opposing factors. This theory still leaves the particular stimulus uncertain and it may be a toxic substance or something else. Family periodic paralysis, epilepsy and migraine are so similar in many of their characteristics that writers have repeatedly noted it. The hereditary tendency to the paroxysms is very marked in migraine and family periodic paralysis and, according to some, also in epilepsy.

In none have any abnormal anatomical changes in the nervous system been constantly found. The resemblance of the symptoms to those due to certain poisons has led to the construction of theories of intoxication, but nothing definite is known regarding the poisons supposed to operate in these cases. The explanation by means of imaginary "periodic discharges of nerve-force" or by "nerve storms" brings us no nearer to the conditions and activities provoking the storms. Since the members of this group of paroxysmal neuroses are so similar in many ways, a comparative study may be of value in helping to clear up some points in connection with each.

THE NATURE OF THE CELLS IN PIGMENTED MOLES.

Pigmented moles in various parts of the body not infrequently become the starting-point of melanotic tumors, often of exceedingly great malignancy and widespread metastasis. In 1871 Durante, in Italy, first advanced the view that the cells composing nevi are epithelial in origin and not mesodermal as held by Rokitansky and Virchow, and upon this basis he brought forward a theory of the origin of tumors in a matrix of embryonal cells, a theory which Cohnheim proposed quite independently three years later. More recently Unna, ignorant at the time of Durante's views, strongly advocated the genesis of nevi in epithelium, and since then, especially

1. Brain, xxiv, 1901, 257.
2. Journal of Nervous and Mental Diseases, September and October, 1898, 637 and 719.
3. Amer. Jour. Med. Sciences, November, 1899, 513.
4. Ibid., February, 1900, 160.
5. Amer. Jour. Med. Sci., June, 1900, 651.
6. N. Y. Med. Journal, May 13-27, 1899.

recently, much has been written on both sides of this question. The followers of Durante and Unna refer to the melanotic tumors arising in moles as melano-carcinomata or as nevo-carcinomata, whereas others continue to speak of them as melano-sarcomata.

Recently, Abesser[1] in Orth's laboratory in Göttingen, and Larass,[2] working in Lubarsch's laboratory in Posen, have published the results of investigations concerning the origin and genetic significance of the cell masses in cutaneous nevi. Both reach conclusions positively in favor of Unna's views. They derive the round and oval nevus cells as well as the branching pigment cells from the epidermis from which they are separated by a peculiar transformation with softening and loss of the epithelial fibrillation. According to Abesser, the nevus cells at first may be connected with one another and with adjacent typical epithelial cells by fine protoplasmic bridges. The cells thus separated are not regarded as changed into connective tissue cells but as retaining their epithelial character, the process being regarded as a species of metaplasia. Later, connective tissue and elastic elements grow in among the cell heaps from the surrounding tissue. In spite of the convincingness of the appearances described by these investigators, especially Abesser, and regarded by them as fully demonstrating the origin of the nevus cells in the epidermis, the unquestionably sarcomatous behavior and general biology of the malignant tumors springing from nevi may be urged with considerable force as strongly suggesting that pigmented moles may take their origin from aberrant mesodermal cells misplaced into the lower layers of the epidermis whence they may break loose and again enter the cutis. In view of the fact that the malignant tumors arising in nevi clinically and anatomically resemble sarcoma rather than carcinoma, especially as we know it when arising in the epidermis, the peculiar morphologic appearances in moles should not be accepted as necessarily decisive. The problem is still worthy of further study, especially by means of serial sections of nevi in the newborn and at a time when they are in process of formation.

While the question whether the melanotic tumors arising in pigment moles are melano-carcinomata or melano-sarcomata may be regarded as a purely academic one of little or no real practical significance—the arguments for and against that way of looking at things need not be discussed now—the significance of moles as the starting-point of rapidly malignant and usually pigmented tumors can not be too strongly emphasized. The slightest sign of growth in a pigmented mole should lead to prompt and thorough removal. False conservatism in case of moles upon the face, for instance, and crude efforts at removal by means of strings and pastes have been followed more than once by rapid growth and fatal generalization. There lurks in the cells of pigmented moles a hidden potency for malignant growth that can not receive too much attention.

1. Virchow's Archiv, 1901, clxvi, 40-66.
2. Inaugural Dissertation, Leipzig, 1901.

THE RELATION OF ARSENIC TO ALCOHOLIC NEURITIS AND BERI-BERI.

During the last half of 1900, there occurred in England a most remarkable epidemic of peripheral neuritis which was referred to at the time in THE JOURNAL.[1] The cases were limited to persons who drank beer and were first considered to be instances of alcoholic neuritis. The presence of certain symptoms not observed in the usual cases of peripheral neuritis due to alcohol, especially pigmentations and keratosis of the skin, running of the eyes and nose, pain, redness and swelling of the soles of the feet and often also of the palms of the hands, led Reynolds of Manchester to suspect that arsenic might be the cause of the disease. The beer of the district was submitted to chemical examination and found to contain arsenic, usually in considerable quantity. The source of the arsenic in the beer was traced to the sugars used in brewing. The sugars were prepared from cane sugar and starch by the action of sulphuric acid, which, when crude, often contains arsenic. After Reynold's extensive experience with these cases he is inclined to suspect that arsenic is a factor in the production of many cases which have passed as "alcoholic neuritis." In the arsenical cases, the poison is found in the urine, the hair and the skin. It is not unlikely that the combined action of alcohol and arsenic may, as has been suggested, be more liable to cause neuritis than either alone.

Some of those who observed the epidemic in England called attention to the marked resemblance between arsenical neuritis and beri-beri. So strong was the likeness that some medical men in Chester held to the diagnosis of beri-beri even after arsenic had been found in the beer consumed by the patients. The absence of skin lesions in cases of beri-beri is usually considered sufficient to differentiate them from those of arsenical neuritis. It is possible, however, that skin eruptions and pigmentation may have been overlooked in dark-skinned races. Some epidemics of beri-beri on shipboard and in institutions may have been instances of arsenical poisoning from contaminated food or drink. Some observations made by Ross in connection with beri-beri, while they do not show conclusively that arsenic is the essential cause of the disease, at least suggest such a possibility. In August, 1901, a patient came under the observation of Ross[2] in which there was a peripheral neuritis so similar to beri-beri and to arsenical neuritis that the diagnosis was reserved. The hair of the patient was found to contain a considerable quantity of arsenic. The source of the arsenic could not be traced to beer but it might have been contained in the canned food which the patient had eaten largely, either in glucose, in preservatives or in the tin lining of cans.

More recently Ross[3] reports the results of the chemical examination of hair from 21 cases of beri-beri, 20

1. JOURNAL A. M. A., Dec. 15, 1900, 1587; Dec. 22, 1900, 1641; Jan. 26, 1901, 268; Feb. 9, 1901, 392.
2. British Medical Journal, Oct. 5, 1901, 979.
3. Ibid., Feb. 8, 1902, 329.

of which specimens came from Penang, a known beriberi locality. In 6 of the specimens of hair arsenic was found. Ross does not claim to have shown that arsenic is necessarily the cause of the disease but leaves the question open for the present. He notes that arsenic was found in recent cases and suggests that the distance from the scalp at which the hair was cut may influence the findings. It will be interesting to follow the results of further investigation in connection with these diseases, which are so nearly alike in most clinical peculiarities.

CREDULITY AND MEDICINE.

In his interesting address on "Belief and Credulity,"[1] Professor Jastrow of the University of Wisconsin has occasion to refer to credulity as applied to medical and kindred matters. Naturally, some of his most striking illustrations are from other fields than medicine, but in order to complete the collection of the types of credulity which he desires to illustrate he refers to Eddyism as a system of interpretation of facts which though "startling and contradictory to ordinary experience, gains widespread credence, and that in spite of pronounced inconsistency with verifiable observation and common sense." He then goes on to say:

"Even in this field of intellectual effort the land of the free and the home of the brave has contributed an article worthy to compete with the foreign product. Eagle-like, this system spreads its wings and soars free from the bonds of sense or earth-bound realities, free from human logic and the errors of mortal mind, free from the material impediments which the Author of Nature has inconsiderately set in our paths, free to make things so by thinking them so, free to set method and learning and experience at naught. And surely it calls for braveness of no common order to resist the seductive appeals of eye and ear, to sail steadily on heedless of the calls of the sirens of rationality, convinced at the outset that things can not be as they are. . . . . It is not necessary in this connection to recount the beliefs of this system; it is sufficient to point out that when thousands of intelligent persons give practical adherence to, and enroll themselves under the banner of one who teaches that a bunion would be an adequate cause of insanity if only we held the same belief about the bunion as we do about congestion of the brain; that smallpox is contagious by reason of the same agencies as make weeping or yawning contagious; that fear may be reflected in the body as fractured bones, just as shame is seen rising to the cheek; that anatomy and physiology and hygiene are the husbandmen of sickness and disease, while the reading of a text-book of christian science is equally effective in producing health; or that when a healthy horse takes cold without his blanket, it is on account of the poor creature's knowledge of physiology—then such persons can hardly complain if they are cited as instances of modern credulity."

Professor Jastrow is well aware that this extreme instance of departure from rationality is not an isolated example of the boundless credulity of mankind in matters medical, and he refers to Oliver Wendell Holmes' "Homeopathy and Its Kindred Delusions," as an interesting study of some of the various forms that this credulity has taken. The address is a stimulus to intellectual virtue and right belief, and it is especially valuable because the author calls attention so directly to credulousness as illustrated by subjects connected with medicine.

1. Educational Review, January, 1902.

ENDOWMENT OF MEDICAL EDUCATION.

The enlargement and endowment of the Harvard Medical School seems like the opening of a new day in medical education. The gift of $1,000,000 for new buildings by Mr. Pierpont Morgan was quickly followed by another from Mr. Rockefeller of a like sum conditional only upon the raising of about three-quarters of a million by the college from other sources. Now, this condition has been more than met by the contributions of the alumni and the donation by Mrs. Collis P. Huntington of $250,000 for a pathological laboratory to be erected as a memorial of her late husband. A few more such benefactions judiciously distributed throughout the country will go far to furnish the opportunity, so far as material resources are concerned, to put this country well in the front in the advancement of medical science. Harvard will now be judged by her opportunities; if she fails to take the lead it will be to her discredit. A fortunate circumstance is that Mr. Rockefeller's donation is available for general endowment purposes instead of being specially for new buildings like the Morgan gift. Tying up funds in brick and mortar is sometimes a favorite practice of donors and trustees, but an absolute hindrance to the scientific usefulness of the gift. It is here as elsewhere "the man behind the gun" who wins, and endowment of medical research is more important than the mere housing of it, showy and effective as the latter may be in some ways. A building is a perpetual charge; an income-producing investment is the reverse and available for whatever needs may develop. We need endowment funds for our medical colleges all the more to free them from the commercial tendencies that have afflicted them in the past and still exist to a certain extent. A really high-class institution can not depend upon the income of the lecture fees. It is to be hoped that the better endowment of medical instruction now started in this country will soon have its effects in raising and maintaining the medical standards.

DISINFECTION AND HEALTH DEPARTMENTS.

In cities of considerable size we have learned to depend very largely upon the public department of health for the disinfection of houses after cases of contagious diseases. While this is often convenient and, in the case of people who are in very moderate circumstances, almost essential, it has some decidedly objectionable features. The men who do this work in health departments are usually appointed for other reasons than their special ability to do the required work. Many physicians have observed infection of healthy persons who have returned to houses which were supposed to have been disinfected by health department employes. The proper disinfection of a house after any of the contagious diseases requires the services of a conscientious man who possesses some technical training and a good deal of com-

mon sense. To hang a sheet in a room and spray some formalin upon it is not thorough disinfection, although it may be as much as a department of health can afford to do. When people are able to pay for proper disinfection, it should be done in a most complete manner. In large cities there is work enough of this kind to furnish a profitable business for some well-qualified men who could be depended upon, and recommended, by the medical profession to families who request that their homes be disinfected. There is no more reason why a public department of health should furnish free disinfection of houses for people who can afford to have it done than that health department laboratories should make gratuitous examinations of blood for diagnostic purposes in cases where the patient could pay. There is a tendency to impose too much upon public health departments and to secure from them the performance of work which should be done by qualified private individuals who are properly paid for it.

THE FUTURE WOMAN.

In his "Descent of Man," Darwin suggested the probability that such natural weapons as horns and tusks, when present in both sexes of an animal species, were originally only possessed by the male and their possession by the female was a later acquirement; in other words, the female gradually usurped the offensive and defensive appendages of the male. Darwin's inference has lacked paleontologic proof until lately. In a recent paper,[1] Dr. C. I. Forsyth-Major has taken up the question from this point of view, considers the evolution as shown in fossil remains of the deer, giraffe, bovine and porcine families—all possessing these appendages—and comes to the conclusion that Darwin was about right. The subjection of the female, so far as it was dependent upon her not bearing arms according to the fashion of her kind, therefore came largely to an end. Major applies this fact to our own species, and concludes his paper, as quoted by *Science,* with the following: "In our own species the modern aspirations of women are to all appearances incipient signs of the same natural law. Physical and mental character of man, originally acquired in the struggle of the males, are apparently being slowly transferred to women. They only require time for their full evolution." We can now see what we are coming to; the new woman is all right in the natural order of things and has bovine and cervine, etc., precedents in her favor. In a few more geological periods the descent of man from his pinnacle of physical superiority may be complete. Perhaps it may be some comfort to appreciate the fact that when the paleontologic evidence is being looked up in the case of man and when the female Jeffries and Fitzsimmonses are holding the belt, those of us who now object to the coming order will be out of the ring and fossils in dead earnest.

1. Geological Magazine, December 4, vol. viii, 1901, referred to in Science, Feb. 28, 1902.

Turpentine in Infectious Diseases.—M. Nasaroff observed very favorable results from the administration of turpentine in 70 cases of erysipelas, 18 of parotitis, 6 of scarlet fever, smallpox and suppurating affections of the uterus. He gave fifteen drops in milk two or three times a day.—*Voenno-Med. Journal,* September, 1901.

Medical News.

CALIFORNIA.

New Hospital for San Diego.—The supervisors of San Diego County have passed a resolution to proceed with the preliminaries for the erection of a county hospital on a lot owned by the county on University Heights, San Diego.

Chico Physicians Revolt.—The municipal license imposed on physicians at Chico is causing trouble. The physicians of the city, instead of meekly turning over $5 to the city marshal on his quarterly visits, have made up a purse and propose to resist the collection of what they consider an unjust tax.

Lane Memorial.—Memorial services for the late Dr. Levi Cooper Lane, of San Francisco, were held in Lane Hall, Cooper Medical College, March 9. Dr. Henry Gibbons, Jr., presided and presented the tribute from the trustees; W. D. Blake, of the class of 1902, spoke for the undergraduates; Dr. Charles N. Ellinwood, on behalf of the faculty, alluded to the sense of great personal loss felt by Dr. Lane's associates; and Dr. Edward R. Taylor, vice-president of the college, spoke of the courage with which Dr. Lane faced and overcame difficulties in the mastery of his profession.

DISTRICT OF COLUMBIA.

Few Applicants for Medical Military Glory.—On April 7, the examination of applicants to fill 64 vacancies in the army medical department will be begun. Only 54 applications for examination have been received.

Dr. Godding's Portrait.—A handsome oil painting of the late Dr. William W. Godding, for twenty years superintendent of the Government Hospital for the Insane, has been finished and will be hung in the assembly hall of the administration building of the institution.

The Columbian University has just completed plans and let contracts for the erection of a new hospital building and a new medical and dental school on H Street, N. W., between 13th and 14th. The buildings will be colonial in style. The hospital has a frontage of 60 feet, and the medical school building, 50 by 144 feet, will be five stories high.

ILLINOIS.

For Million's Money.—Suit has been entered in the Circuit Court of Sangamon County to set aside the will of the late Dr. John L. Million, whose estate exceeded $100,000 in value. The estate was left in trust for the benefit of the widow and her two sons. It is claimed that Dr. Million's mind had become affected from the use of strong medicines and narcotics before the testament was drawn.

Chicago.

An Accredited College.—The Royal College of Physicians of London and Royal College of Surgeons have placed on their limited list of accredited colleges, the Northwestern University Medical School (Chicago Medical College).

Smallpox Among Negroes.—The Commissioner of Health reports that with only 1.75 per cent. of the total population of the city, the colored contingent has furnished nearly 80 per cent. of the last group of smallpox cases. Between March 4 and March 22 there were 34 cases discovered, 7 white and 27 colored.

The City's Mortality.—During the week ended March 22, 537 deaths occurred, a reduction of 17 deaths from those of the previous week, but an increase of 72 as compared with the corresponding week of 1901. The death-rate per 1000 per annum was 15.38. The principal causes of death were: Pneumonia, 88; consumption, 59; heart diseases, 52, and bronchitis, 34.

X-Ray Diagnosis.—The autopsy on the late Dr. Christian Fenger confirmed a diagnosis made by a skiagraph last fall. At that time Dr. Fenger had an attack of colic, which he thought might be due to gallstones, and a skiagraph taken by W. C. Fuchs showed small dark shadows in the region of the gall-bladder. At the autopsy, three gallstones were found in the viscus.

"Pink Eye" is Influenza.—The so-called "pink eye" which has been increasing in prevalence for some weeks is only another manifestation of the grip or influenza bacillus. The Department of Health advises that every case of "pink eye" be at once subjected to a bacteriologic examination for the influenza bacillus; if this be found in the secretions the indication for treatment is obvious, and a cure may be effected within forty-eight hours. These examinations are made in the laboratory

for physicians without charge and the results are telephoned without delay.

IOWA.

To Regulate Barbers, Osteopaths and Opticians.—Three new state boards are contemplated in pending bills—to control and regulate barbering, osteopathy and optometry. The bill for a board to issue certificates to osteopaths provides that they shall receive certificates, not as medical practitioners, but as osteopaths.

Waterloo Emergency Hospital.—Drs. Daniel W. Crouse, Reuben A. Dunkelberg, Thomas U. McManus, William B. Small, Lafayette W. Case, Elmer E. Dunkelberg, Henry W. Brown, Fred W. Keehl, have incorporated the Waterloo Emergency Hospital Association with a capital stock of $20,000.

Dr. Hill Resigns.—Dr. Gershom B. Hill, who has been superintendent of the Iowa Hospital for the Insane, Independence, since 1881, and who, for seven years prior to that time, was assistant physician in the institution, has notified the Board of Control of State Institutions that he will not be a candidate for re-election. He expects to locate in Des Moines and to practice medicine as a specialist in insanity.

Reciprocity.—The bill introduced by Dr. Emmert, of Atlantic, for granting of certificates to practice medicine and surgery in the State of Iowa without examination has been up in regular order and passed. It grants a certificate to practice medicine and surgery in the state without an examination where a certificate can be shown that such permission has been given in other states; that is, where the applicant comes from a state which grants a like favor.

KENTUCKY.

Cornerstone Laid.—The cornerstone of the new $80,000 German Deaconess Home and Hospital, Covington, was laid, March 16, with appropriate ceremonies.

Alumni Meeting.—Beginning March 25 and continuing for two days, the Alumni Association of the Louisville Medical College held its annual meeting. The arrangements were in charge of Drs. A. O. Pfingst, Aug. Schachner and Irvin Abell of the faculty of the college. Among the out-of-town members in attendance were Drs. J. A. Burroughs, of Asheville, N. C.; R. C. McChord, Lebanon; Arch Dixon, Henderson, and J. A. Harris, of New Albany, Ind. Dr. J. W. Fowler acted as toastmaster at the annual banquet at the Galt House.

Stringent Vaccination Order.—The Bowling Green Board of Health has issued an order requiring all persons who have not been vaccinated within three years to submit to vaccination within five days. Each person, man, woman and child, must be vaccinated at three places, on the arm or body, and shall be revaccinated until the operation is successful. The alleged smallpox patients have been removed to the pesthouse. City Health Officer T. B. Wright has been instructed to visit the schools and see that the order of the board is complied with.

Recent Legislation.—The governor has signed two bills of interest to the profession, which were passed by the late legislature. One is an act to regulate the practice of barbering, the registering and licensing of persons to carry on such practice, to insure the better education of such practitioners, to insure better sanitary precautions in barber shops and to prevent the spread of disease in the state of Kentucky. The other bill is an act to establish and maintain free public libraries in cities of the first class; this enables Louisville to avail itself of the offer of Carnegie of $250,000 for a building to be used for library purposes. The profession is a unit in its endeavor to have the mayor appoint a member of the medical profession one of the twelve trustees of the library in order to establish a good medical library as one of its departments.

MARYLAND.

Art Loan Exhibit for Hospital.—An art loan exhibit was held for the benefit of the Frederick City Hospital Association.

Baltimore Mortality.—The death rate continues low, only 188 deaths being reported in the week ended March 22, against 245 for the same week last year. Of the causes of death consumption claimed 21, pneumonia 16, and cancer 7.

New Hospital at Annapolis.—As a result of the recent visit of the Surgeon General of the Navy, the old naval hospital on the government farm at Annapolis is to be remodeled and made into a hospital for mariners and sailors. The building originally cost, with land, $200,000, and was erected when Admiral Porter was Superintendent of the Naval Academy. It has been long in disuse and used as a storage warehouse. It is built in the shape of an anchor, and has a frontage of 260 feet. It is charmingly situated with a beautiful view of the bay, Annapolis City and the surrounding country, and the situation is very healthful.

Personal.—Dr. George French Owens, a physician of Upper Marlboro, Prince George's County, has received an appointment as assistant surgeon, U. S. Army, and has been ordered to the Philippines. He is a graduate of the University of Maryland. ——Drs. Bernard A. Goodman and W. A. Davis, Baltimore, have resigned positions as health warden and have been succeeded by Dr. Thomas Sudler.——Dr. H. J. Berkley had his eyeball removed, March 16, for an injury received from a piece of steel flying into his eye while working on an instrument. Two other members of the Johns Hopkins Medical School have each lost an eye previously, namely, Dr. J. J. Abell, from an explosion in his pharmacological laboratory, and Dr. Miller, from infection while operating on a pus tube.

MISSOURI.

St. Louis Not Responsible.—Circuit Judge Fisher decided, March 17, that the city was not responsible for damages in the death of the thirteen children who died some time ago from tetanus caused by the administering of antitoxin procured from the Board of Health.

The Gregory Banquet.—Cards are out announcing that the St. Louis Medical Society will give a testimonial banquet to Elisha Hall Gregory, M.D., LL.D., to commemorate his fiftieth anniversary as a teacher of medicine. It will be held at the Planters' Hotel, St. Louis, April 17.

Change of Asylum Control.—On March 12, the change of management in State Insane Asylum No. 1, Fulton, became operative. Dr. James W. Smith, Pleasant Hill, assumed his duties as superintendent, with Drs. Zachary T. Martin, William M. Bayliss, and J. Frank Harris, assistants.

Ensworth College Commencement.—A. class of 14 was graduated from Ensworth Medical College, St. Joseph, March 17. Dr. P. I. Leonard presided as master of ceremonies; the faculty address was by Dr. Charles G. Geiger. An address was delivered by Dr. William G. Moore, St. Louis, and the degrees were conferred by Dr. T. H. Doyle.

NEBRASKA.

Medics vs. Dents.—For two hours on March 20 a fierce fight was waged at Omaha between 300 medical and dental students. More than 100 were injured, two seriously.

License Revoked.—The State Board of Health has revoked the license given to Dr. E. B. Oliver in August last, on the ground that he was an itinerant physician and that some of his practices were unprofessional.

Methodist Hospital at Omaha.—The lay press announces that work will be commenced on a Methodist Hospital at Omaha, 432 by 250 feet, and with accommodations for 150 patients. The hospital is to cost $225,000.

The Smallpox Situation.—A correspondent summarizes the smallpox situation in the state and the deficiencies of state laws regarding sanitation. During the winter of 1901-2, there were more than a thousand cases of smallpox in Omaha and South Omaha; 250 cases were present at one time in the two cities. These cities, Lincoln and the Indian agencies have suffered greatly. South Omaha has been particularly negligent with reference to the matter for the reason that the cases were mild. Omaha has been honored with a visit from the representative of the United States Marine-Hospital Service, Dr. C. P. Wertenbaker. To its shame be it said the State of Nebraska has absolutely no laws with reference to any duties or any powers of the State Board of Health from a sanitary standpoint. Their only duties, as prescribed by law, are as a license-granting body. Past legislatures have uniformly been niggardly and have never thought it necessary to furnish means in the direction of human sanitation, although they have given generously for hog sanitation. This year the Board has a small sum and, in spite of absence of law, is using it in the proper manner. The situation has been so bad throughout the state that Dr. Wertenbaker has been sent here. In order to become most thoroughly acquainted with the real situation, he became, for the time, an aide to the governor.

NEW YORK.

Oswego Hospital.—It is announced that $12,000 has already been subscribed for the new hospital at Oswego.

M. W. Townsend Operating Room.—The Genesee County Medical Association, at its meeting in memory of Dr. M. W.

Townsend, deceased, requested the directors of the Batavia Hospital Association to name the operating room at that institution the M. W. Townsend Operating Room.

Hospital Bill a Law.—The Governor has signed the Hanford hospital bill which provides that in counties that do not contain a hospital, and that adjoin counties of another state that do contain hospitals, contracts may be made between the municipality in the one county and the hospital authorities in the other for hospital treatment, etc. The bill further legalizes the acts of village boards in appropriating moneys for said purpose in the past and provides that they must be paid.

Commission on Prophylaxis.—A bill has been introduced into the assembly providing for a commissioner to inquire into the history, nature and pathology of vaccination, the history, nature and pathology of smallpox from the time of Sydenham to the present time; the value of vaccination as a prophylactic against smallpox; the history, nature and pathology of antitoxin and other serums alleged to be prophylactic against diphtheria, hydrophobia, phthisis and other diseases; whether there is any danger of the bubonic plague or other severe epidemics visiting the United States and the State of New York, and if so, what measures should be taken to avert any and what alteration in regard to the matters above mentioned should be made in the existing law. The commission is to be called the Commission on Prophylaxis, and will consist of five members appointed by the governor.

New York City.

Personal.—The President of the United States of Venezuela has conferred the high class "Decoration of the Bust of the Liberator Bolivar" on Dr. Emil Heuel.——Dr. Gustavo Tosti, vice-consul of Italy, was graduated from Long Island College Hospital in 1901 and passed the state examination last month.

Hospital in Statu Quo.—The Board of Directors of the Memorial Hospital for Women and Children, Brooklyn, has voted by a large majority to continue the hospital on the plans on which it was organized; to maintain it as a hospital for the treatment and care of women and children, and has accepted the resignation of Mrs. John H. Burtis, who had been president for many years.

Skene Memorial Window.—In the new St. Paul's Protestant Episcopal Church, Flatbush, there has been placed a beautiful art window to the memory of the late Dr. Alexander J. C. Skene. The window was designed by Julius Hausleiter. It has been placed directly over the altar, occupying a space 14 by 19 feet. The subject is "The Great Physician." Beneath is the sentence, "Come unto Me all ye that labor and are heavy laden and I will give you rest." In a separate panel is this inscription: "To the Glory of God and in Loving Memory of Alex. J. C. Skene, M.D., LL.D."

Staten Island Physician Censured.—The Health Board has censured a Staten Island physician for failure to report a case of smallpox which came to his attention last January, and with the announcement of this official action it was intimated that the names of two, and possibly three, other physicians who are under suspicion for the same dereliction of duty would also be published. The failure on the part of doctors to report cases is due either to carelessness or a desire to show some special favor to a patient—more frequently the latter. A doctor has no right to exercise discretion in these questions of the public welfare.

Want Ward's Island as It Was.—At a largely-attended meeting of the New York County Medical Association, March 17, the following resolutions were unanimously passed:

To His Excellency the Governor of New York:

WHEREAS, Lunacy Bill No. 368, recently passed by the Legislature, has abolished the positions of the two medical superintendents at Ward's Island, New York, it has placed two officers under one head, thus putting over four thousand insane patients under one management; and

WHEREAS, The supplemental bill amending Bill No. 368 is now before the Legislature, restoring these positions, so that the divisions of the hospital as they formerly existed—one for men and one for women—may be maintained,

Resolved, That the New York County Medical Association heartily indorses this amendment and advocates its immediate passage.

On March 20, the New York Academy of Medicine unanimously adopted the following resolutions, which were presented by Dr. J. D. Bryant:

WHEREAS, Lunacy Bill No. 368, recently passed by the Legislature, places about 4000 insane patients of Ward's Island under the medical supervision of a single superintendent, and

WHEREAS, In the opinion of the New York Academy of Medicine the magnitude of such a burden as that is far too great to be wisely and safely borne by a single head, be it therefore

Resolved, That the Fellows of the New York Academy of Medicine do hereby respectfully register their objection to such a course of action, and earnestly petition his honor, the Governor of the State, that not less than two superintendents be placed in charge of said patients.

Resolved, That a copy of this resolution be forwarded by the Secretary of the Academy to the Governor at Albany.

NORTH CAROLINA.

Medical College to Open.—The Medical Department of the North Carolina University at Raleigh will open in September. Medical students who have taken the first two years' studies at the university will be able to graduate after two years' study in the medical college, according to press notices.

Attempted Poisoning.—The entire family of Dr. David T. Tayloe, Washington, president of the State Medical Society, was poisoned, March 17, by arsenic. Prompt medical care averted serious results. Dr. Tayloe's negro driver was arrested on the charge of attempted poisoning, was taken from jail and lynched by "parties unknown."

Aldermen Approve College.—The board of aldermen of Raleigh has adopted the following resolutions providing for a free dispensary for medical students:

WHEREAS, The college can not succeed without proper medical facilities and hospital managements, therefore be it

Resolved, By the board of aldermen of the City of Raleigh that a free dispensary be established at the Rex Hospital building, where the city physician be required to attend outdoor charity patients of the city instead of as at present in his own office.

Resolved, That the students of the University of North Carolina Medical College be allowed the privilege of visiting the dispensary and of being instructed in the methods of examining patients under the supervision of the city physician.

OHIO.

Memorial to Dr. Emily Hill.—The Wood County Medical Association, at its recent meeting at Bowling Green, passed resolutions in memory of Dr. Emily Hill, the only woman in the association, who died, February 7.

Cocain Bill Passed.—The House has passed the bill prohibiting the sale of cocain except on the prescription of a physician. It is to be labeled "poison," and the names of the purchaser and the person for whom it is purchased are to be recorded by the selling druggist.

For the Care of Indigent Crippled Children.—A bill looking toward the state providing for indigent, crippled and deformed children has been introduced before the legislature by Senator Warner, of Cuyahoga. It provides for the appointment by the governor of a board of five to serve without compensation. This board shall have the power to contract with hospitals, institutions or organized bodies for the care and treatment of indigent, crippled or deformed children, or those suffering from disease likely to result in deformity. The bill carries an appropriation of $10,000 for each of the next two years to defray the expenses for such care of this class of children.

A Non-Compromising Compromise.—A so-called compromise has been effected between the State Medical Board, representing the physicians of the state, and the osteopaths. The latter will not insist upon a separate board for the examination of the candidates for the practice of osteopathy, but, instead, an amendment to the present state medical law has been agreed upon by which the State Medical Board will appoint three osteopaths to examine applicants for degrees in that school. The examination will be in the principles and practice of osteopathy. The State Board of Medical Examination and Registration will examine all candidates recommended by the osteopathic committee of three in anatomy, physiology, chemistry, and physical diagnosis, as provided by the present statute. This so-called compromise is really a complete victory for the physicians of the state.

PENNSYLVANIA.

Philadelphia.

Bequests.—The following bequests have recently been announced: Justice B. Crandall, Ocean View, N. J., to the Women's Hospital, Philadelphia, $5000; Benjamin Brooke, to the House of Refuge, $10,000, the income to be devoted to Christmas dinners, etc.

Polyclinic Change.—Dr. J. Alison Scott has been elected professor of clinical medicine and therapeutics at the Philadelphia Polyclinic to fill the chair recently resigned by Dr. Solomon Solis-Cohen. Dr. Scott is instructor in clinical medicine at the University of Pennsylvania and physician to the Pennsylvania Hospital.

Bazaars for Hospitals.—The board of managers of Jefferson Maternity Hospital lately held a bazaar which netted about $1000 for the institution. A similar function was recently given for a fund to build a sun-parlor for the medical

ward of the University of Pennsylvania, as a result of which about the same amount was realized.

Decrease in Typhoid and Smallpox.—New cases of both typhoid fever and smallpox show a marked decrease. Of the latter there were only 35 new cases for the week ended March 22, as against 53 for the previous week; 219 cases are still under treatment at the Municipal Hospital. The sum of $225,000 has been appropriated by councils for expenses incurred in the suppression of the smallpox epidemic. It is estimated that more than $80,000 will be required to pay the vaccine physicians.

The New Jefferson Hospital.—The proposed new Jefferson Medical College Hospital is soon to be under way. Plans and specifications have been accepted. An appropriation of $50,000 was made by the last Pennsylvania legislature for the enterprise, on condition that the work on the building should be begun not later than June 1. It is assured that the condition will be fulfilled. Hon. William Potter, chairman of the Board of Trustees, has recently donated $50,000, to which is added a bequest of $65,000 from the J. Alfred Kay estate.

GENERAL.

Cholera in Manila.—On March 22, there were reported at Manila, P. I., 16 cases of cholera and 15 deaths; March 23, there were 5 additional cases and 5 deaths reported. On March 24, up to noon, there had been a total of 26 cases and 21 deaths; at noon of the 25th there were 49 cases and 39 deaths.

Mortality Rate of Manila.—In its population of 250,000, Manila had, during the month of December, 858 deaths and 406 births. The annual death rate per 1000 was 40.43; this high rate was due to the Filipino mortality, 51.42 per 1000. The rate among the American and European whites was only 13.96 per 1000. The greatest mortality during the month was from infantile convulsions, which amounted to 255. The maximum temperature was 85; minimum, 68.6, and mean, 70 F.

Vaccination Against Plague in Manila.—The Manila Health Department is vaccinating, with the Shiga serum, all the Filipinos and Chinos of the city and such whites as desire it. The first large batch (200) was inoculated February 14, and it is expected that 100,000 will be so treated within the subsequent three months. Not a case of bubonic plague had occurred during the year up to leaving of the last mail, February 20. In the preparation of the smallpox virus eleven young water buffaloes are used.

Health of Havana.—As Major W. C. Gorgas, chief sanitary officer for Havana, will give way to a Cuban official on May 20, he sums up the work of the American health authorities in the following interesting statement:

> The Army took charge of the Health Department of Havana when deaths were occurring at the rate of 21,252 per year. It gives it up with deaths occurring at the rate of 5720 per year. It took charge with smallpox endemic for years. It gives it up with not a single case having occurred in the city for over eighteen months. It took charge with yellow fever endemic for two centuries, the relentless foe of every foreigner who came within Havana's borders—which he could not escape, and from whose attack he well knew that every fourth man must die. It found Havana feared as a thing unclean by all her neighbors of the United States, and quarantined against as too dongerous to touch, or even to come near anything that she had touched, to the untold financial loss of both Havana and the United States. It leaves, after careful study of the question of yellow fever by its officers, undeterred by personal risk—for several of the investigators have died of the disease, contracted at their work. It has established the fact that yellow fever is only transmitted by a certain species of mosquito, a discovery that in its power for saving human life, is only excelled by Jenner's great discovery, and as time goes on, it will stand in the same class as that great boon to mankind.

Medals of Honor.—During the operations of our Army in Cuba, the Philippines and China, the commanders in the field reported numerous incidents of individual and unusual bravery, in recognition of which they recommended that medals of honor be given. Gen. MacArthur was president of a board of Army officers appointed to review the large number of recommendations received and to report these cases most deserving of recognition. On the report of this board 33 medals of honor have been awarded, 10 to officers, and 23 to enlisted men. Among the officers receiving these medals is Lieut. George W. Mathews, Assistant Surgeon, U. S. Army, formerly captain and assistant surgeon, 36th Volunteer Infantry, for most distinguished gallantry in action near Labao, Luzon, P. I., Oct. 29, 1899, in attending wounded under a severe fire of the enemy and seizing a carbine and beating off an attack upon wounded officers and men under his charge. The *Army and Navy Register*, in commenting on this, says:

> It is an interesting fact recalled by the awarding of a medal of honor to Lieut. George W. Mathews, of the medical department, that 5 of the 110 medals which are now held by Army officers were conferred upon officers of the medical department. This is rather surprising when it is reflected that medical officers are noncombatants and are not usually found on the firing line. Their position is supposed to be where there is difficulty for an officer to distinguish himself by the sort of valor which gains a medal of honor. The list of medical officers who win that distinction is steadily growing year by year.

CANADA.

Canadian Medical Association.—This Association will hold its annual meeting this year in Montreal on September 16, 17 and 18, under the presidency of Dr. Francis J. Shepherd of that city, Dr. George Elliott of Toronto being the general secretary. Professor Osler will deliver the address in medicine and Dr. John Stewart of Halifax, N. S., the address in surgery.

The Southern Medical Association of Manitoba.—This Association met at Brandon on February 26, nearly sixty physicians of the province being present. The following officers were elected; President, Dr. L. M. More, Brandon; secretary, Dr. Little, Alexander; executive council, Dr. Poole, of Neepawa, Dr. Goodwin of Elkhorn, Dr. Thompson of Douglas, and Drs. Macdonald and McDiarmid of Brandon.

Ontario Medical Association.—The next annual meeting of the Ontario Medical Association will be held in Toronto on June 4 and 5, under the presidency of Dr. N. A. Powell, of that city, Dr. Harold C. Parsons being the general secretary. Dr. J. T. Fotheringham has been appointed by the president as chairman of the Committee on Papers and Business. It is understood that the program will present several new and interesting features.

Blackmailer Pleads Guilty.—The attempt to extort $200 from two Toronto practitioners by means of threats on the part of a man who had summoned both physicians to attend his wife and child respectively, did not work out as smoothly as the would-be blackmailer anticipated. After putting up a rather poor defense in the Sessions, the case finally terminated rather suddenly by the offender pleading guilty to the charge. Sentence will be pronounced during the week.

Combined Arts and Medical Course at Toronto University.—The Senate of Toronto University has recently passed a statute under the terms of which it will be possible hereafter for a candidate to secure the degree of B.A. at the end of his fourth year and M.B. at the end of his sixth year. Anatomy will be an optional study in the third and fourth years; and in this way a student at the end of his fourth year in arts will be enabled to proceed directly to his third year in medicine.

Dr. Roddick's Bill Before the Special Committee.—On March 20 the select committee appointed by the House of Commons to consider the terms of Dr. Roddick's bill to provide for a Dominion Medical Council, discussed the measure. Owing to the bill being considered in some quarters to infringe on provincial autonomy, Dr. Roddick explained that this law could not come into force in any province until said province had passed legislation putting it in force. The committee is to further consider the measure the present week.

Personal.—Dr. Harvey McKnaught, Trinity, 1897, is visiting at his home in Toronto.——Dr. Richard Carney has been appointed city physician to Windsor, Ont., while Dr. J. A. Ashbaugh has been appointed medical health officer of the same place.——Dr. Harry J. Watson, Trinity Medical College, 1896, has been with the American Army in the Philippines for the past year. His superior officers have recommended him for distinguished service in the presence of the enemy. Dr. Watson practiced previously at Ottumwa, Iowa.

Obituaries.—Dr. A. Dixon Wagner died at Cornwall on February 13 at the age of 53 years. He was a graduate of McGill University.——Dr. Theodule Bolduc, ex-house surgeon of the Notre Dame Hospital, Montreal, and who had just commenced practice in that city, died suddenly from heart disease on the afternoon of March 20, aged 26.——Dr. F. H. Thompson, of Seattle, Wash., died recently of typhoid fever. He was a son of a prominent citizen of Toronto and a graduate of Trinity Medical College. He was one of the officers of the coast and geodetic survey steamer *Patterson*, and had spent the last two years in Alaska, in the parts adjacent to Cape Nome and Sitka.

FOREIGN.

Death of Medical Explorer.—The African explorer, Dr. Emil Holub, died recently in his 56th year from malaria.

Cholera Among Pilgrims.—It is officially stated that over 1100 deaths have occurred this month in Mecca and Medina in Arabia.

The second meeting of the International Conference for the Prophylaxis of Syphilis and the Venereal Diseases will be held in Brussels, Belgium, Sept. 15 to 20, 1902.

Compulsory Vaccination in France.—A new law has been passed in France requiring vaccination against smallpox compulsory in the first year of a child's life, revaccination at 11, and again ten years later.

Prizes for Future International Medical Congresses.—After paying all the expenses of the last international medical congress, a surplus of about 40,000 francs is left. The committee expect to apply this sum as an endowment of a triennial prize to be awarded at future congresses.

Prussian Appropriations for Medical Research.—The Prussian government appropriates, for the present year, 53,000 marks for a cancer laboratory and ward, 10,000 marks to the committee on cancer research, and 20,000 marks for the study of means of prevention and early diagnosis of typhoid fever.

Title for Soxhlet.—The Bavarian crown has conferred a title of nobility on Prof. Franz Soxhlet, of the technical school at Munich and director of the agricultural experimental station. He is now chevalier of the Order of Merit of the Bavarian Crown, in token of appreciation of his contributions to milk hygiene, etc.

Foreign Physicians in Brazil.—Consul Kenneday writes from Para, Brazil, that a statute in that country provides that all physicians and dentists of foreign extraction who desire to practice their profession in any part of the country must first pass an examination at the medical colleges of Bahia and Rio de Janeiro. The law is to be more rigidly enforced in the future.

Death of Kaposi.—Vienna has lost the professor of dermatology and syphilis, Moritz Kaposi, who died the 6th inst. His name is familiar to physicians the world around. He was in his 65th year and had long suffered from a cardiac affection entailing distressing attacks of asthma, in one of which he succumbed. The twenty-fifth anniversary of his professorship was celebrated two years ago by an ovation from his numerous pupils and friends.

XIVth International Medical Congress.—The 14th International Congress of Medicine will take place at Madrid, Spain, April 23 to 30, 1903. The work will be divided among 16 sections. Intending essayists should send their articles, accompanied by a short résumé, before Jan. 1, 1903. Articles arriving after that date must be presented after the discussion on the subject has taken place. The official languages of the Congress in all the *séances* will be Spanish, French, English and German. In order to facilitate the work and meet the expenses, a special circular states, physicians who desire to inscribe their names should do so immediately, at the same time sending 30 pesetas (23 to 25 francs) to the secretary-general, Dr. Angel Fernandez-Caro, Madrid, who will send the necessary blank forms for presentation of communications and inscription.

Suit for Damages Against Duehrssen.—Prof. A. Duehrssen found it necessary to remove the uterus as the last resort in operating on a woman almost 45 years old, who had been referred to him by her physician for the relief of sterility. She had suffered from abdominal disturbances for some time and gave her age as 42. He found the rectum adherent to the uterus, and in detaching the adhesions serious hemorrhage followed, which he tried in vain to control by suturing the uterus and ligating the vessels. The discovery of a suspicious tumor supplemented the hemorrhage in indicating extirpation of the organ. An intestinal fistula developed later and the patient sued him for unnecessarily removing the uterus and the consecutive fistula. Most of the experts agreed that he should have consulted with the patient beforehand and obtained her consent to the operation. The "Staatsanwalt" fixed the amount of damages as 300 marks, but the judge acquitted the plaintiff, on the grounds that the patient's assertions had been contradictory in one or two points; that the fact that she had been referred to him by her physician constituted consent to an operation on her part, and further that there could be no question of malpractice as Duehrssen is the acknowledged authority in such cases.

LONDON LETTER.

Extraordinary Action Against a Physician by a Patient for Induction of the Morphin Habit.

The perils of medical practice and the fact that doctors in the discharge of their duty are liable to be the victims of unfounded and vexatious actions is well known in this country. But seldom has such a flagrant example been furnished as the following: A nurse, the proprietor of a nursing home, brought an action against a London practitioner, Dr. Law, for damages on the alleged grounds that he had administered morphin, cocain and other drugs to her, given her opportunities of administering the drugs to herself "to such an extent that she lost her reason and very nearly her life." It appeared that she suffered from spasmodic asthma, for which the doctor administered morphin hypodermically when other remedies failed, and that she acquired a taste for the drug and indulged in it to her detriment, and became a morphinomaniac. For the defense it was shown that the morphin treatment was adopted after consultation with Dr. Mitchell Bruce and other eminent physicians; Sir Douglas Powell and Dr. Theodore Williams bore witness that the treatment was correct. It was also proved that only the pharmacopeial dose of morphia had been given by the doctor. On hearing the latter evidence the jury stopped the case and brought in a verdict in his favor, adding that the case should never have been brought into court. The judge fully concurred in the verdict and expressed his indignation at those who had advised plaintiff's counsel. It has been observed by an eminent judge that nurses' knowledge of medicine induces them to bring actions against physicians. Another example of this fact was given not very long ago. Dr. Cullingworth, the well-known gynecologist, performed ovariotomy on a nurse who afterwards brought an action against him on the grounds that she had not given her consent to such a radical operation. It was clearly shown that she had given permission to him to do what he thought necessary and that the operation was requisite. She lost her case, but for a long time persecuted the Doctor by raising all sorts of legal points and endeavoring to obtain a new trial. In recognition of the hardship a subscription list was opened to defray his legal expenses and the profession subscribed a large sum.

The Smallpox Epidemic in London.

The epidemic still continues to progress. On March 1, there were 1309 cases in hospital against 1102, 1185 and 1321 at the end of the preceding three weeks; 379 new cases were admitted during the week against 287, 390 and 502 in the three preceding weeks. Cases of failure to diagnose the disease continue to occur with consequent dissemination. Thus the medical officer of health for Stepney reports that on investigating an outbreak in a family he learned that the father had been unwell three weeks previously and had been treated for a fortnight by a doctor who diagnosed influenza. At the time of the medical officer's visit the patient had returned to his employment of dairyman. Five other cases subsequently occurred in the house.

The Midwife Bill. Second Reading Carried.

The bill to regulate the practice of midwives which was "talked out" in the House of Commons last year has passed its second reading in spite of considerable professional opposition. As has been explained in THE JOURNAL it is proposed to register midwives who alone will be allowed to call themselves such and to attend women in labor for gain. In order to be registered a woman must undergo a course of training and pass an examination. At present any woman, however ignorant and dirty, can call herself a midwife and attend cases of labor and carry puerperal fever from case to case. This is the only country in Europe in which the practice of midwives is not regulated. But since 1878 attempts have been made to legislate on the subject. The bill has been supported by the Royal College of Physicians, the Obstetrical Society and General Medical Council; but it is strongly opposed by the rank and file (by 95 per cent. it is estimated) and by the medical press. The reasons given are that the bill creates a "new order of practitioners" who can in the course of their short training acquire only a very rudimentary knowledge of midwifery and in whom recognition by the state will cause the public to impose unfounded confidence. Thus it is maintained that the bill is fraught with danger to the puerperal woman. The answer to this is that about two-thirds of the labors in the country are attended by midwives, usually because the patients can not pay for the services of a physician. The question is not one of a well-trained doctor or an imperfectly-trained midwife but of a midwife who has received some training or one who has received none.

Port Sanitation—Great Destruction of Rats.

Dr. Williams, medical health officer for the port of London, states that from Nov. 24 to Dec. 31, 1901, 2917 vessels were inspected. Six cases of plague were reported and 13 cases of typhoid fever dealt with. The war of extermination against

rats continues to be vigorously carried out, 10,164 having been destroyed since the last report. In a subsequent report for the month of January, 1902, it is stated that 7626 rats have been destroyed, bringing the total up to 100,000. In one large steamer no fewer than 1000 rats were found after fumigation.

Losses in the South African War.

An official statement just issued shows that the casualties from the beginning of the war to the end of February were 89,195, which includes, however, 68,701 men sent home as invalids, the majority of whom have recovered and resumed duty. The actual reduction of the military forces through the war is 25,962, which is made up as follows: Killed in action, 5445; died of wounds, 1903; died in captivity, 102; died of disease, 12,334; accidental deaths, 639; invalids sent home who have died, 479; invalids who have left the service unfit, 4988; missing and prisoners, 72. During last month the figures were: killed, 171; wounded, 463; missing, 18; died of disease, 525; accidental deaths, 41; invalided home, 2367; total, 3585. The 528 deaths from disease compares with 536 in January, 351 in December, 236 in November, and 136 in October.

Correspondence.

Philadelphia Municipal Hospital.

PHILADELPHIA, March 18, 1902.

To the Editor:—I was sorry to see in the issue of THE JOURNAL for March 15, under "Pennsylvania Notes," a manifestly untrue statement as to the action of the Philadelphia County Medical Society respecting the administration of the Municipal Hospital. This news item conveys an entirely wrong impression, as from my own knowledge, a vast majority of the members of the Society most cordially endorse and commend the splendid work accomplished in this Hospital, with its inadequate facilities. The facts are these: No business can be introduced at the scientific meetings of the Society, except by unanimous consent. As one member objected, I was obliged to rule against the admission of resolutions commendatory to the management of the hospital during the present epidemic of smallpox. Your correspondent must have taken his quoted sentence from the public prints, as no such language as that used by him appeared in the wording of the resolutions referred to.

Very truly yours, THOMAS H. FENTON,
President of the County Medical Society.

Displaced Heart.

BLOOMINGTON, ILL., Feb. 6, 1902.

To the Editor:—On November 27, 1901, G. W. H., late private in the Illinois Cavalry, came before the Board of U. S. Examining Surgeons at Bloomington, Ill., for examination for an increase of pension. He was born in Illinois, and has always lived in this state, except when he was in the Union Army from 1861 to 1864. He is 58 years old, weighs 150 pounds, and is 5 feet and 7¾ inches high; he has blue eyes, gray hair, light complexion, and is by occupation a carpenter. He complained of chronic rheumatism, disease of the digestive organs, abdominal hernia, injury to back, fracture of both bones of left leg, and debility from old age.

The apex impulse of the heart was evident on inspection and palpation in the fifth intercostal space one inch to the left of the right nipple line. The area of cardiac dulness was normal; the rhythm was regular; the action and sounds were normal, with no dilatation or hypertrophy. The only thing peculiar or unnatural was its anomalous position. This soldier was examined by the board about three years ago, at which time the malposition of the heart was first discovered.

In this case the apex of the heart is transposed to the right side and the base to the left side. The natural situation is simply reversed. The structure and function of the heart are normal. The arterial side is toward the left and the venous toward the right side.

In more than forty years as a student and practitioner of medicine I have never read or heard of a case similar to this. On account of its rarity I report it, thinking that it may be of interest to the profession. JOHN LITTLE, M.D.,
Sec. Board of U. S. Examining Surgeons.

Married.

SOLOMON S. LEE, M.D., to Miss Irene Childs, both of Calumet, Mich., March 11.

ROSCOE M. WOOD, M.D., Saline, Mich., to Miss Mattie Blaess of Lodi, Mich., March 12.

OSCAR M. GILBERT, M.D., to Miss Agnes Kirkbridge, both of Boulder, Colo., March 26.

E. ZEIGLER BOWER, M.D., to Miss Mary McMahon, both of North Scranton, Pa., March 14.

EDMUND F. BURTON, M.D., to Mrs. Alberta N. Hall, both of Oak Park, Ill., at Tucson, Ariz.

JESSE A. PRINGLE, M.D., Bagley, Iowa, to Miss Gertrude Swann of Lovilia, Iowa, March 19.

HUMBERT MEREDITH, M.D., Petroleum, Ky., to Miss Effie Wootten of Lafayette, Tenn., March 11.

JOHN J. REYCRAFT, M.D., Petoskey, Mich., to Miss Metta J. Cornell, of South Bend., Ind., March 19.

EDWARD GUION, M.D., Atlantic City, N. J., to Miss Sarah Edie Fleming of Yonkers, N. Y., March 18.

HENRY V. BERGHALL, M.D., Manistee, Mich., to Miss Margaret Evelyn Herron, at Elmwood Farm, Pumptown, near Metuchen, N. J., March 15.

Deaths and Obituaries.

Henry M. Skillman, M.D. Transylvania University, Lexington, Ky., 1847, expired suddenly, from heart failure, while ministering to a patient at his office in Lexington, March 21, aged 78. He was one of the best-known and best-beloved physicians in Kentucky, and his loss comes as a personal one to a large number of the profession of Kentucky. He was born in Lexington, Sept. 4, 1824. He studied in the literary department of Transylvania University, from which he withdrew at the end of his junior year in order to prepare for the study of medicine. He spent a year in the drug store of his brother and then entered the medical department of Transylvania, from which he graduated in 1847. On graduating he was made demonstrator of anatomy, and later was called to the chair of physiology and pathological anatomy. He held this position until the buildings were burned during the Civil war. He was contract surgeon for the government for two years during the war. In 1869 Dr. Skillman was elected president of the Kentucky State Medical Society, and there have been very few meetings since then that he has missed. He was a member of the American Medical Association for about forty years, and was the first president of the Lexington and Fayette County Medical Society.

George M. Warner, M.D. Louisville (Ky.) Medical College, 1880, died suddenly at his residence in Louisville from angina pectoris, March 16, aged 44. He was born in Louisville, received his education in the public schools and graduated from the Male High School in the early 70's. For about two years after his graduation he was connected with the Louisville *Courier-Journal* as a reporter, but then entered on a course of study in the Louisville Medical College. For the five years after graduation he was lecturer on materia medica and therapeutics, and in 1885 was elected professor of these branches, which position he held up to the time of his death. He has been for ten years president of the Alumni Association of the Louisville Medical College, and since 1892 had been visiting physician to the Louisville City Hospital. From 1894 to 1899 he was editor of the Louisville *Medical Monthly*. He was a member of the American Medical Association. In 1886 Dr. Warner married Miss Hood, a daughter of the Confederate general, J. B. Hood; his widow and two children survive him.

Russell B. Freeman, M.D. College of Physicians and Surgeons, Baltimore, 1892, died at St. Anthony's Hospital in Denver, March 12, from appendicitis, after an illness of 10 days, aged 41. He was instructor in clinical medicine, Gross Medical College, and a member of the American Medical Association, Colorado State Medical Society, Denver and Arapahoe Medical Society, Rocky Mountain Inter-State Medical Society and Denver Clinical and Pathological Society. Resolutions on the death of Dr. Freeman have been sent to his family by the Denver and Arapahoe Medical Society, the staff of St. Anthony's, and of St. Joseph's hospitals.

Dr. W. W. Johnston.

William Waring Johnston was born in Washington, D. C., in 1843, and died suddenly, March 21, 1902, at Atlantic City, N. J., where he had gone for rest and recuperation after a slight illness. He studied medicine in the University of Pennsylvania, graduated in 1865, and served as interne in Bellevue Hospital for one year. Later, he studied at Edinburgh and Paris, and, on the death of his father, Dr. William Poynton Johnston, professor of obstetrics in the Columbian University, he became professor of the theory and practice of medicine in the same institution. He has been president of the old Clinical Pathological Society, Medical Society of the District of Columbia, Medical Association of the District of Columbia, and the Washington Obstetrical and Gynecological Society, likewise, member of the American Medical Association, the Association of American Physicians, American Climatological Society and the Anthropological Society. He was consulting or attending physician of the Children's, Garfield Memorial, University, Providence, the Asylum, United States and Emergency Hospitals, Central Dispensary and Woman's Clinic. The faculty of the Medical Department of the Columbian University and the Medical Board of the University Hospital, at a special meeting, adopted and placed on record a suitable memorial. He was the attending physician to the late James G. Blaine, and was called in consultation in the case of President McKinley.

WILLIAM WARING JOHNSTON.

John R. Timberlake, M.D. Kentucky School of Medicine, Louisville, 1857, died of paralysis at his residence in Louisville, March 16. On March 6 Dr. Timberlake had a stroke of apoplexy which was followed by a second on the day of his death. He located in Pewee Valley, where he practiced for nearly thirty years. In 1888 he went to Louisville with the intention of retiring from active practice, but he did more work there than before. He was married in 1869 and five children survive him.

Jonathan Woodward Goodell, M.D. Berkshire Medical College, Pittsfield, Mass., 1856, one of the oldest practitioners of Lynn, Mass., died at his home in that place, March 12, from abscess of the liver, after an illness of four weeks, aged 71. At his funeral delegations were present from the Massachusetts Medical Society, the Essex South Medical Association, and the Lynn Medical Fraternity.

Albert R. Leeds, Ph.D. College of New Jersey, 1878, professor of chemistry in Stevens' Institute, Jersey City, member of the State Board of Health and chairman of its council of analysts, an authority on food and water analysis and member of many scientific bodies, died from cancer of the stomach, March 13, at his home in Germantown, Pa., aged 58.

John H. Christian, M.D. Medical College of Virginia, Richmond, 1867, who served in the Civil war in Mosby's command, and at the close of the war studied medicine and settled for practice in Baltimore, died, March 13, from diabetes at the Virginia Hospital, Richmond, aged 55. He was a member of the American Medical Association.

Charles G. Massie, M.D. Medical College of Virginia, Richmond, 1860, an old and prominent physician of Goochland County, Va., and a veteran of the Civil war, throughout which he served on the Confederate side, died from paralysis at his home near Perkinsville, Va., March 12, after an illness of four days, aged 65.

David F. Brown, M.D. Washington University, St. Louis, 1873, a prominent physician of Dresden, Mo., one of the largest landowners in Pettis County, and a member of the board of managers of State Lunatic Asylum, No. 3, at Nevada, Mo., died at his home in Dresden, March 15, from pneumonia, aged 56.

Lorenzo S. Keene, M.D. New York University, 1846, formerly a practitioner and surgeon of the Lake Shore and Michigan Southern Railway at Laporte, Ind., but of late years retired from practice and residing in DeLand, Fla., died from pneumonia at his home in that place, March 18.

Marc Livingston, M.D. Cooper Medical College, San Francisco, 1875, a specialist on diseases of the throat and lungs, and in 1882 and 1883 coroner of San Francisco, died at his home in that city, March 14, after an illness of nearly five years, from paralysis, aged 44.

George G. Williams, M.D. Long Island College Hospital, Brooklyn, N. Y., 1876, one of the oldest practitioners in Hillsdale County, Mich., died at his home in Jonesville, March 16, from cancer of the stomach, after an illness of three months, aged 52.

Benjamin F. Sutton, M.D. University of Vermont, Burlington, 1860, a prominent physician and citizen of Addison County, Vt., died at his home in Middlebury, Vt., from pneumonia, March 11, after an illness of one week, aged 66.

J. Baxter Upham, M.D. Harvard Medical School, Boston, 1848, who served through the Civil war as a major-surgeon on General Burnside's staff, died from acute indigestion, at his home in New York City, March 17, aged 82.

Mauricio W. Gillmer, M.D. Jefferson Medical College, 1881, a native of Brazil, South America, where his father was American minister, died at his home in Philadelphia, March 17, aged 41. He had retired from practice in 1892.

William Fontaine Lippitt, M.D. Jefferson Medical College, Philadelphia, 1853, who had practiced in Charlestown, W. Va., for more than forty years, died at his home in that place after a prolonged illness, March 11, aged 70.

Cornelius E. Satterfield, M.D. College of Physicians and Surgeons, Keokuk, Iowa, 1878, a physician of Omaha, Neb., died, March 11, from paralysis after a lingering illness, at Cook's Hospital, Fairmont, W. Va.

Leroy Swank, M.D. Rush Medical College, Chicago, 1885, a physician of Warren County, Ind., and secretary of the County Board of Health, died at his residence in Williamsport from pulmonary tuberculosis, March 17.

Leonidas H. Eaton, M.D. Rush Medical College, Chicago, 1874, died at his home in Oshkosh, Wis., March 16, from diabetes and heart disease, after an illness of four years, aged 52. He was city physician in 1882.

John J. Clark, M.D. University of California, San Francisco, 1869, a practitioner of San Francisco since 1877, at one time city physician, died at his home in San Francisco from paralysis, March 10, aged 58.

Edward Newton Beale, M.D. Berkshire Medical College, Pittsfield, Mass., 1864, for more than thirty years a physician of Rensselaer County, N. Y., died at his home in Schaghticoke, N. Y., March 16, aged 66.

Joseph J. Fortier, M.D. Ecole de Médecine et de Chirurgie, Montreal, Quebec, 1860, a physician of West Superior, Wis., died suddenly at his home in that place, March 17, from apoplexy, aged 62.

John W. Hill, M.D. University of Pennsylvania, Philadelphia, 1853, one of the oldest and most prominent physicians of Edgefield County, S. C., died suddenly at his home in Edgefield, March 13.

James Murphy, M.D. State University of Iowa, Iowa City, 1888, a young physician of Iowa City, died at his home in that city from typhoid fever, after a short illness, March 12, aged 37 years.

Albert A. Becherer, M.D. Marion-Sims Medical College, St. Louis, 1901, senior physician at the Female Hospital, St. Louis, died from septicemia at his rooms in that institution, March 8, aged 27.

James R. Lyons, M.D. Tulane University, New Orleans, La., 1882, a retired physician of Bagwell, Red River County, Texas, and a member of the twelfth legislature, died March 7.

Alfred F. Fletcher, M.D. Queen's Medical College, Melbourne, Australia, 1864, died at his home in Eau Claire, Wis., March 14, suddenly from heart disease, aged 57.

George H. Lane, M.D. Marion-Sims College of Medicine, St. Louis, 1895, died at his home in East St. Louis, Ill., March 18, from pneumonia, aged 28.

Anson A. Gibbs, M.D. University of Vermont, Burlington, a retired physician of Hemlock, N. Y., died from paralysis at his home, March 16, aged 71.

Allen T. Corliss, M.D. Rush Medical College, 1894, a practitioner of Logansville, Wis., died at that place, March 19.

E. L. Thorp, M.D. Keokuk (Iowa) Medical College, 1877, died at his home in Shell Rock, Iowa, March 10.

Book Notices.

OIDIOMYCOSIS (BLASTOMYCOSIS) OF THE SKIN AND ITS FUNGI. By Howard T. Ricketts, Fellow in Cutaneous Pathology in Rush Medical College. Paper. Reprinted from *Journal of Medical Research*, Vol. VI, No. 3.

The conclusions of this monograph have been given already in THE JOURNAL of January 18, p. 204. In its reprinted form it makes a handsome volume of over 180 pages, elegantly illustrated. It is a noteworthy contribution to dermatologic literature.

AN INTRODUCTION TO THE BACTERIOLOGICAL EXAMINATION OF WATER. By W. H. Horrocks, M.B., B.Sc., Lond., Assistant Professor of Military Hygiene in the Army Medical School, Netley. Cloth. Pp. 300. Price, $3.68 net. Philadelphia: P. Blakiston's Son & Co. 1901.

This volume, which is intended to be a concise and readily understandable manual of methods of bacteriologic examination of water, divides water bacteria into three classes: Those which are found only in pure water, those which are common in sewage and hardly met with in pure water, those which are specially pathogenic to human beings. The preparation of water plates, collection of water for bacteriologic examination, the natural history of the organisms, the relation of quantitative analysis to the question of pollution, etc., are noticed and the different species described, especial attention being given to those of importance. The subject is a difficult one in some respects, the water bacteria being minute and often pleomorphic; yet, so far as we have observed, the author has handled his subject well.

CLINIQUE DES MALADIES DU SYSTEME NERVEUX, HOSPICE DE LA SALPETRIERE (1897-1898, 1898-1899). Cinquième and Quatrième Serie. Paper. Pp. 606 and 678, respectively. Price, 70 francs. Paris: Octave Doin. 1900 and 1901.

These two volumes are the latest of the series publishing Professor Raynaud's didactic lectures at the Salpêtrière. As in the earlier issues of this series they are not exactly parts of a systematic text-book on nervous disorders, but rather a succession of clinical lectures on various conditions published as they were delivered, but with numerous schematic and other illustrations. They do not form a treatise, but are instead a series of monographic studies of special subjects, and as such have a particular value.

Among the subjects included in the two volumes may be mentioned polio-encephalitis superior, various disorders attendant on or complicating tabes—such as ophthalmoplegia, muscular atrophy, etc.—affections of the conus terminalis, juvenile general paralysis, myxedema, partial epilepsy, cortical sensory centers, multiple sclerosis, etc. All of these are handled in a masterly way and the volumes form a valuable contribution to neurologic literature. As usual with French writers the style is lucid and the illustrations are a valuable adjunct to the text. They can hardly be spared from the working library of the neurologic specialist.

Association News.

The Third Annual Conference of the Committee on National Legislation.

The Committee on National Legislation has sent to the delegates from the several State Medical Societies, the following call for the third annual conference to meet in Washington, D. C., April 10 and 11. Special attention is hereby called to the fact that this is the annual meeting and conference of the Committee on National Legislation, and must not be mistaken for a meeting of the Committee created by the new By-Laws of the Association, and known as the Committee on Medical Legislation, which is to meet with the Association at Saratoga in June next. Very truly yours, H. L. E. JOHNSON.

WASHINGTON, D. C., March 17, 1902.

Dear Doctor:—The Committee of the American Medical Association on National Legislation hereby requests you, as the delegate from your State Society, to meet this committee in annual conference at the Arlington Hotel, Washington, D. C., April 10-11, 1902, at 9 a. m. In the event of your inability to attend, please forward this notice promptly to your alternate. You should arrange early with Mr. Bennett, proprietor of the Arlington, for your accommodations. Street cars will take you direct from both depots to the hotel, obviating extortionate cab fare. Delegates are requested to present to the conference any matter, local or national, of interest to their State Society. The following will be submitted by this committee for your consideration, viz.:

Reports of Committees of the Second Annual Conference:

1. Committee on "Uniform legislation on basis of uniform medical education": Drs. Emil Amberg, Dudley S. Reynolds, John B. Roberts.
2. Committee on "State medical organization": Drs. C. R. Shinault, W. P. Goff, L. B. Tuckerman, H. M. Bracken, Charles E. Quimby.
3. Committee on special Congressional Bills, last session: S. 4171, Quarantine Bill; H. R. 13423, Codification Postal Laws; Dr. L. B. Tuckerman.
4. Committee on Reorganization Bill: Dr. G. M. Sternberg.
5. National Committee ad interim. Annual report; Committee on National Legislation: Drs. H. L. E. Johnson, Wm. H. Welch, W. L. Rodman.

NEW BUSINESS.

6. Official action of conference of State Health Officers at Washington, D. C., March 12-13, 1902, and their recommendations to Congress, and the third annual conference, in connection with pending National Health bills, viz.: Perkins Bill S. 2162, To increase the efficiency and change the name of the United States Marine Hospital; Hepburn Bill H. R. 7189, duplicate of Perkins Bill; Spooner Bill S. 2417, Relating to quarantine and public health; Ray Bill H. R. 10,595, To establish a board of public health and for other purposes.
7. Bills and Acts: Gallinger Bill, S. 189, For the further prevention of cruelty to animals in the District of Columbia; Nelson Bill, S. 569 (now an act of Senate with report 82), To establish the department of commerce and labor; Hay Bill H. R. 1952, To define the duties of the medical department of the Army of the U. S.; Kern Bill H. R. 7650, To re-establish the Army canteen; Proctor Bill S. 2172, To provide for the payment of medical expenses of sick officers and enlisted men of the Army while absent from duty with leave or furlough.
8. Communication from Dr. John J. Riley, U. S. Army, Manila, P. I., with proposed amendment to Sec. 18, of Act 4300, approved Feb. 2, 1901, bearing the endorsement of the Legislative Committee of the medical officers of the U. S. Army at Manila.
9. Reports of delegates (State Societies).
10. Miscellaneous.

Please acknowledge the receipt of this and notify me promptly whether you or your alternate will attend the conferences.

Very truly yours, H. L. E. JOHNSON, M.D.,
Chairman Committee on National Legislation.

Societies.

COMING MEETINGS.

American Association of Pathologists and Bacteriologists, Cleveland, O., March 28-29, 1902.

Medical Association of the District of Columbia, Washington, April 1, 1902.

Tri-State Medical Society of Iowa, Illinois and Missouri, Chicago, April 3-4, 1902.

Tennessee State Medical Society, Memphis, April 8, 1902.

Florida Medical Association, Tampa, April 9, 1902.

Western Ophthalmological and Oto-Laryngological Association, Chicago, April 10-12, 1902.

Medical Association of the State of Alabama, Birmingham, April 15, 1902.

Medical Society of the State of California, San Francisco, April 15-17, 1902.

Medical Association of Georgia, Savannah, April 16, 1902.

Mississippi State Medical Association, Jackson, April 16, 1902.
South Carolina Medical Association, Spartanburg, April 16-17, 1902.
Medical and Chirurgical Faculty of Maryland, Baltimore, April 22, 1902.
Association of American Physicians, Washington, D. C., April 29-30, 1902.
American Association of Genito-Urinary Surgeons, Atlantic City, N. J., April 30, 1902.
International Association of Railway Surgeons, St. Louis, Mo., April 30 and May 1 and 2, 1902.
American Gastro-Enterological Association, Washington, D. C., May 2, 1902.
Nebraska State Medical Society, Omaha, May 6-8, 1902.
Texas State Medical Association, Dallas, May 6-9, 1902.
Kansas Medical Society, Lawrence, May 7-9, 1902.
American Therapeutic Society, New York City, May 13, 1902.
Utah State Medical Society, Salt Lake City, May 13-14, 1902.
New Mexico Medical Society, Albuquerque, May 14, 1902.
Oklahoma Territory Medical Association, Oklahoma City, May 14, 1902.
Arkansas Medical Society, Little Rock, May 14-16, 1902.
New Hampshire Medical Society, Concord, May 15-16, 1902.

Panhandle (Texas) Medical Association.—This Association met at Quanah, March 12, and re-elected Dr. David R. Fly, Amarillo, president, and Dr. T. H. Carroll, Clarendon, secretary.

Louisville (Ky.) Clinical Society.—The regular meeting of the Louisville Clinical Society was held, March 11. Dr. M. K. Allen, health officer, read a paper on "Diphtheria," in which he gave the statistics of a severe epidemic in Louisville last year.

Chattanooga (Tenn.) Medical Society.—At the annual meeting of this Society, March 7, Dr. Benjamin F. Travis was elected president; Dr. Charles S. Durand, vice-president, and Dr. Joseph W. Johnson, secretary, and Dr. Samuel T. Rucker, treasurer.

West Chicago Medical Society.—This Society gave its first annual banquet, March 6. Dr. Emil D. St. Cyr acted as toastmaster, and those who responded were Drs. David Birkhoff, O. Martin Steffenson, Edward H. Lee, Benjamin H. Breakstone and Gustavus M. Blech.

Page County (Iowa) Medical Society.—Physicians of Page County met at Shenandoah, February 25, and organized a county medical society, electing Dr. Tilford L. Putnam, Shenandoah, president; Dr. Sellard, Clarinda, secretary, and Dr. Clark, Shambaugh, treasurer.

Practitioners' Club (Louisville, Ky.).—The annual meeting of this Society was held, March 11, the election of officers resulting as follows: President, Dr. James E. Guest; vice-president, Dr. Frank T. Fort; secretary and treasurer, Dr. Hugh R. Manning; historian, Dr. John J. Moren. A banquet was served at the conclusion of the business session.

New Medical Society at Columbus.—A meeting of Columbus physicians took place, March 18, under the chairmanship of Dr. Christopher P. Linhart. The following officers were elected: Dr. David N. Kinsman, president; Drs. John C. Bishop and Frank S. Rarey, vice-presidents; Dr. Charles S. Means, secretary, and Dr. Sherman Leach, treasurer.

St. Clair County (Ill.) Medical Society.—The following officers were elected at the annual meeting of this Society, held at East St. Louis, March 6: Dr. Henry C. Fairbrother, East St. Louis, president; Dr. Charles W. Lillie, East St. Louis, recording secretary; Dr. Adolph E. Hansing, East St. Louis, treasurer, and Dr. Buenavandura H. Portuondo, Belleville, corresponding secretary.

San Joaquin Valley (Cal.) Medical Society.—This Society held its thirteenth semi-annual session at Fresno, March 11, electing officers for the next term as follows: First vice-president, Dr. John B. Rosson, Tulare; second vice-president, Dr. Claeburne W. Evans, Modesto; third vice-president, Dr. A. B. Cowan, Fresno; secretary, Dr. W. S. Fowler, Bakersfield; assistant secretary, Dr. Dwight H. Trowbridge, Fresno, and treasurer, Dr. Thomas M. Hayden, Fresno. A committee was appointed to confer with the other local societies and with the committee of the state society on reorganization to better affiliate with the American Medical Association.

Saratoga County (N. Y.) Medical Association.—The semi-annual meeting of this Association was held at Ballston Spa, March 11. Eleven new members were elected. The topic selected for discussion was "Puerperal Sepsis," Dr. Dudley R. Kathan, Corinth, taking up the etiology and prophylaxis; Dr. Walter C. Crombie, Mechanicsville, the symptoms and diagnosis, and Dr. George Hudson, Stillwater, complications, their diagnosis and treatment. Dr. Frank A. Palmer, Mechanicsville, was elected president; Dr. Henry J. Allen, Corinth, vice-president; Dr. James F. Sweetman, Jr., Ballston Spa, secretary, and Dr. William E. Swan, Saratoga Springs, treasurer.

NEW YORK ACADEMY OF MEDICINE—SECTION ON PEDIATRICS.

Stated Meeting, held Feb. 13, 1902.

Dr. Rowland G. Freeman, in the Chair.

Acquired Syphilis in a Girl of Eight Years.

DR. SARA WELTKAKELS presented a girl aged 8, with a macular syphilid on the body, and a general and marked adenopathy. The initial lesion was upon the clitoris.

Stomatitis Due to Vincent's Bacillus.

DR. HENRY HEIMAN exhibited two children having an ulceromembranous stomatitis characterized by the presence of Vincent's bacillus and the spirillum of Miller. He said that the bacillus could be readily demonstrated by a smear stained with carbol-fuchsin.

DR. E. LIBMAN contended that it had not yet been proved that these bacilli were characteristic of any particular disease, and that these organisms seemed to be associated with destruction of tissue. Their presence would not necessarily exclude syphilis, though it might rule out diphtheria.

Pathology of Adenoids and Tonsils.

DR. A. J. LARTIGAU took up in this paper some of the more important practical points in connection with the pathology, dwelling more particularly on tubercular infection of the tonsil. It was, he said, a very common secondary lesion in connection with pulmonary tuberculosis with cavity formation. Primary tuberculosis of the tonsil was rare.

Operative Treatment of Adenoids and Enlarged Tonsils.

DR. W. K. SIMPSON advocated the surgical removal of all adenoids and enlarged tonsils when of sufficient size to give rise to symptoms. The presence of adenoids was often the cause of repeated attacks of coryza, spasmodic croup and bronchitis, and was almost the sole cause of middle ear deafness in suppurative otitis media. The vault of the pharynx should always be explored with the finger before operating. Whether to use the curette or the forceps was a matter of individual opinion. Personally, he was in favor of the forceps because they bring away a larger piece and enable the operator to see how much has been removed, but for small children the curette was probably the safer instrument. The forceps should be strong and rather large, with a sufficiently extensive cutting surface and a shield to protect the uvula and posterior border of the soft palate from injury. The Gradle forceps, as modified by Concannon, could be confidently recommended. The child should be held upright with a mouth-gag to keep the mouth open. The forceps are introduced closed; then opened widely and pressed well upward and behind, and the mass seized and the forceps withdrawn. The operator should not neglect to again introduce the finger in order to ascertain if any has been left behind. Of the various curettes, some modification of the Gottstein was usually employed. Recurrences of adenoids occurred in only a small proportion of cases. For the performance of tonsillotomy, Dr. Simpson favored the use either of Ermold's simplification of the Mathieu tonsillotome or of the very simple, strong and efficient tonsillotome of Mackenzie. On introducing the instrument, pressure should be constantly made with the finger outward upon the shaft, while at the same time the assistant by external pressure pushes the tonsil into the ring of the instrument. Hemorrhage need give no cause for anxiety, for it is a very rare complication of tonsillotomy in children, and could usually be controlled by the application of peroxid of hydrogen or of a solution of suprarenal extract. Adrenalin rendered particularly valuable service in the removal of tonsils from older children and adults, but it should be remembered that there was some tendency to secondary hemorrhage after its use. Irrigation, spraying and the insufflation of powders were usually to be avoided after these operations, if only because they caused undue motion of the throat. Cracked ice may be swallowed at short intervals, or ice may be applied to the throat externally. The patient should remain in the house and keep quiet for several days, and during this time the diet should be light, and care should be taken not to eat bread-crusts, dry crackers or pieces of meat. The speaker said that while an anesthetic seemed essential to a

careful and thorough removal of adenoids, he was not in favor of employing anesthesia for a tonsillotomy, principally because the gagging of the patient materially assisted the operator in bringing the tonsil into view.

Recent Contributions on the Constitutio Lymphatica.

DR. JAMES EWING said that, clinically, children of this type often died very suddenly and unexpectedly, and during life they presented certain important signs, viz., 1, general lymphatic hyperplasia; 2, persistence of the thymus; 3, hyperplasia of the aorta and sometimes of the heart; 4, evidences of rachitis; 5, evidences of retarded development of various organs; 6, enlargement of the thyroid, and 7, general neurotic tendencies. Recent observations had called attention to the presence of an atrophic stage of the lymphatic diathesis, and the relation of the latter to the various types of lymphatic tuberculosis certainly demanded more careful study. In cases of constitutio lymphatica, nervous symptoms were present throughout the course of the disease, and laryngismus stridulus occurred almost exclusively among these subjects. Dr. Ewing laid special stress upon the great danger of giving chloroform to children afflicted with constitutio lymphatica, and asserted that there was reason for believing that chloroform was rarely, if ever, fatal except in this class of persons.

Surgical Treatment of Enlarged Lymph Nodes.

DR. CHARLES N. DOWD presented a paper on this subject. He favored the surgical removal of tubercular lymph nodes as soon as the diagnosis was made. The incisions could be so arranged that the operation scars would be less disfiguring than those left after abscess formation. Of his own operative cases, 23 had been apparently cured and 47 improved.

DR. A. JACOBI said that while of course all agreed as to the propriety of removing adenoids when large, there was room for an honest difference of opinion in cases in which the adenoids were so small as not to cause snoring. He personally did not believe in operating in the latter class, for, a large experience had taught him that by simply irrigating the parts twice daily with saline solution or with a solution of boric acid, all need for an operation would disappear. He had discovered that it was the habit of nasal specialists to neglect all after-treatment after removal of adenoids, and to this would he ascribe the occurrence of relapses. In operating upon adenoids he did not use an anesthetic, because in order to control the masseter muscles the anesthesia must be pushed to a dangerous degree. The mother or assistant should hold the child, and the head of the little patient should be buried between the thighs of the operator. With a curette the operation could be completed in a minute, and anesthesia was unnecessary and inadvisable.

DR. FRANCIS J. QUINLAN took issue with Dr. Jacobi regarding the treatment of the milder cases of adenoids. The nasal irrigations recommended by Dr. Jacobi were dangerous because of the liability of forcing secretions into the middle ear; moreover, it seemed to him that these irrigations were absolutely useless, for they only served to force the secretions back to whence they came, i. e., the rhinopharynx. The occurrence was no indication of nasal obstruction, as it might be due to the dropping back of the tongue or to vibration of the soft palate.

DR. HENRY D. CHAPIN narrated a case in confirmation of the position taken by Dr. Jacobi that the mild cases of adenoids would recover without operation under simple irrigations.

DR. W. K. SIMPSON objected to such treatment on the ground that many cases, seemingly mild at first, became formidable later by the development of an otitis media.

DENVER AND ARAPAHOE MEDICAL SOCIETY.

Regular Meeting, Held Feb. 11, 1902.

Dr. Edward Jackson, in the Chair.

Bronchial Obstruction in Phthisis.

DR. J. N. HALL said that bronchial obstruction by enlarged bronchial glands must be much more frequent clinically than it is assumed to be.

CASE 1.—Male, 34 years, had left pulmonary tuberculosis for six years, suffered for last three months from dyspnea and cyanosis on slight exertion. Chest retracted on inspiration. Over the left lung diminished respiratory murmur and vocal fremitus, marked inspiratory crooning. These signs persisted for about three weeks and gradually disappeared without notable increase in expectoration. There were no signs of aneurysm nor of intrathoracic tumor.

CASE 2.—Male, aged 20, had old anchylosis of right hip. Cough since 11 years of age, when he had an attack of pneumonia. Dulness was over right apex. Respiratory murmur and vocal fremitus decreased, marked inspiratory dyspnea, harsh inspiration; left pupil slightly larger than right. Patient was treated like one with acutely enlarged scrofulous glands in the neck with large doses of iodid of iron. In a few days the cyanosis and dyspnea had disappeared.

The subsidence of all symptoms of dyspnea and cyanosis in the above two cases is explained by the removal of pressure from the enlarged glands upon the bronchi, in the first case by suppurative process and in the second by absorption.

Rheumatic Creaking in Shoulder Joint in Phthisis.

DR. J. N. HALL reported two cases in one of which a superficial examination may have led to an erroneous diagnosis of pulmonary tuberculosis, while in the other the creaking was associated with this disease.

Iliac Vein Thrombosis After Typhoid.

DR. J. N. HALL reported the above condition in a man of 37 years, who fifteen years ago had typhoid fever. His left leg remained slightly enlarged. From the left groin two veins each as large as a lead pencil ran transversely to the right side. The great size of the collateral vessels leads him to think that the venom path to the vena cava inferior was centrally cut off by upward extension of crural thrombosis. In another case a similar condition exists in the right leg.

Embolism of the Bifurcation of the Aorta.

DRS. W. E. SHOTWELL and J. N. HALL reported the following case: Male, 30 years of age. Valvular heart disease for years. Was suddenly awakened with terrible pain in the legs, which become blue and cold, no pulsation in femoral arteries. Heart enlarged, loud apex systolic murmur. Dyspnea, pulse 120. It is obvious that an instantaneous obstruction of the crural circulation had occurred at the time of his sudden pain. Patient died about thirty-six hours after the attack. Both legs were black, almost gangrenous, for some hours before the fatal result.

A New Canula for Paracenthesis.

DR. JOHN S. MILLER, in presenting to the Society his ingenious invention, said:

The frequent occlusion of the canula by intestine or omentum in the operation of tapping in ascites has suggested this device. Various maneuvers are resorted to, such as changing the patient's position, or the dangerous one of introducing a probe through the canula, generally without success.

This device is simply an addition to the ordinary trocar and canula. The instrument is a smaller but longer canula introduced into that already in position in case there is a cessation of flow. It is blunt and provided with two fenestra. In the latter are two springs which expand and push or hold aside the obstruction on emerging from the original canula, and which are so firmly soldered as to afford no danger of breaking off in the abdominal cavity. Dr. Miller filled the abdominal cavity of a cadaver very tensely with water and had the intestines moderately inflated, thus imitating as nearly as possible the conditions in life. The cadaver was also placed in the position ordinarily used in tapping the abdomen. All efforts by various manipulations failed to catch the bowel or omentum. As a further and practical verification of the absolute safety of this instrument, he has used it over one hundred times, and in all this experience has never encountered any untoward features. With this instrument it is possible to withdraw at least 30 per cent. more fluid than with the ordinary trocar. The fluid runs off very slowly as compared with the flow of the larger trocar, owing to its smaller caliber. The inside canula is not introduced until the flow ceases from the obstruction floating against the mouth of the primary canula. This instrument can be made to fit any canula above caliber 16 French.

Therapeutics.

Gastric Ulcer.

Professor Robin of Paris, as noted in *Ther. Gazette*, gives the following in the treatment of gastric ulcer: For the relief from the pain which usually comes on after the ingestion of food or due to the excessive secretion of hydrochloric acid, the following is recommended:

℞.	Pierotoxin		
	Morphinæ hydrochlor., āā	gr. i	06
	Atropinæ sulph.	gr. 1/5	012
	Ergotin	m. xx	1 30
	Aq. laurocerasi	ʒiii	11 25

M. Sig.: Four or five drops before each meal in water.

The foregoing mixture dulls the sensitiveness of the stomach toward the irritating contact of the milk or solid food. According to the author the pain is not always relieved by such prophylactic treatment; in such cases a powder should be prescribed which will neutralize the excess of acid which may cause the pain. For this purpose he recommends the following:

℞.	Lactose	gr. xx	1 30
	Magnesiæ (calcined)	gr. xxx	2 00
	Bismuthi subnit.		
	Cretæ preparatæ, āā	gr. x	66
	Codeinæ	gr. 1/10	006
	Sodii bicarb.	gr. xx	1 30

M. Ft. Chart. No. i. Sig.: One such to be taken in a little water to relieve the pain.

In case the above does not relieve the pain, the following preparation containing cocain may be prescribed:

℞.	Cocainæ hydrochlor.		
	Codeinæ, āā	gr. i	06
	Spts. chloroformi	ʒii	7 50
	Aquæ calcis	ʒviii	240

M. Sig.: One tablespoonful to be taken occasionally for the relief of pain.

He regards external applications of service in relieving pain and recommends the following liniment for local application:

℞.	Linimenti belladonnæ	ʒiss	45
	Ext. opii		
	Ext. belladonnæ		
	Ext. hyoscyami, āā	ʒss	1 90
	Spts. chloroformi	ʒii	7 50

M. Ft. linimentum. Sig.: To be applied to the epigastric region.

He states that the application of a liniment in this form often proves effective in relieving the distress of the patient when internal treatment has proved ineffective.

For the vomiting, he recommends the above prescription containing picrotoxin and the application of a small blister to the epigastrium. If these fail a powder containing two grains of pulverized opium may be given or an inhalation of oxygen gas. In some cases the only means by which vomiting can be checked is to return to the rest cure. In the treatment of constipation, which is a very frequent complication, laxatives and enemata of warm water should be given. He advises the administration of oleum ricini, or the following:

℞.	Hydrarg. chloridi mitis	gr. vi	39
	Pulv. jalapæ	gr. vi	39
	Magnesiæ (calcined)	gr. xv	1 00

M. Ft. cachet No. i. Sig.: At one dose.

Or the following may be given:

℞.	Pulv. aloes	ʒss	1 90
	Resinæ scammonii		
	Pulv. jalapæ, āā	gr. xv	1
	Ext. hyoscyami		
	Ext. belladonnæ, āā	gr. iii	20
	Saponis, q. s.		

M. Ft. pilulæ No. L. Sig.: One or two to be taken at bedtime.

For the diarrhea which infrequently accompanies ulcer of the stomach, Dr. Robin recommends pulverized euonymi radix in doses of thirty grains, infused in a little water and taken after meals. This may be repeated several times in the twenty-four hours if necessary, as it is non-toxic.

When hemorrhages occur, which naturally accompany gastric ulcer, the patient must be placed on his back, instructed to remain absolutely quiet and apply ice to the epigastric region. Subcutaneously, a solution of ergotin may be injected hypodermically, and gelatin may be administered in the same fashion in the following form:

℞.	Gelatin	ʒi	3 75
	Sodii chloridi	gr. xx	1 30
	Aq. destil.	ʒvi	180

M. Sig.: Inject six drams subcutaneously.

Internally the following should be prescribed:

℞.	Ergotin	ʒi	3 75
	Acidi gallici	gr. x	66
	Syrupi terebinthinæ	ʒi	30
	Aquæ onethi (dill-water)	ʒiv	120

M. Sig.: One teaspoonful every hour.

Alternating with the foregoing the following may be given:

℞.	Calcii chloridi	ʒi	3 75
	Ext. opii	gr. i	06
	Syrupi simplicis	ʒi	30
	Aquæ	ʒiv	120

M. Sig.: One tablespoonful every hour.

The chlorid of calcium is said to have the property of increasing the coagulability of the blood. In case the hemorrhage should recur the patient must be placed upon the absolute rest cure for a period of nine days at least. In case of syncope following hemorrhage he recommends injections of ether or the normal saline solution. He states that the mortality when treated medicinally is about 9 per cent., while it is 20 per cent. in cases operated on. However, certain complications as perforation, etc., require surgery.

Gonorrheal Vaginitis.

Merck's Archives recommends the following in the treatment of gonorrheal vaginitis:

℞.	Hydrastin hydrochloratis	gr. xv	1
	Aquæ q. s. ad. to dissolve.		
	Adipis lanæ hydrosi	ʒiv	15 00
	Copaibæ	ʒi	3 75
	Petrolati	ʒiv	15 00

M. Sig.: Saturate absorbent cotton and pack the vagina night and morning after irrigating.

The following may be employed for irrigation:

℞.	Potassii permanganatis	ʒii	60

Sig.: One-half teaspoonful in two quarts of warm water as a vaginal douche morning and night.

Or the following may be substituted as a douche:

℞.	Pulv. aluminis		
	Pulv. acidi borici, āā	ʒiv	120

M. Sig.: Two teaspoonfuls to the quart of water as a douche for children; four teaspoonfuls to the quart for adults. Use as a douche night and morning.

Where a more astringent wash is desired the following will be of service:

℞.	Acidi borici	ʒiv	120
	Acidi tannici	ʒii	60

M. Sig.: Three teaspoonfuls to the quart of water as a douche twice a day.

As a vaginal antiseptic in the form of suppositories the following is recommended:

℞.	Ichthyol	ʒi	3 75
	Iodoformi	ʒi	3 75
	Acidi tannici	ʒss	1 90
	Adipis lanæ hydrosi	ʒi	3 75
	Olei theobromæ q. s. ad.		

M. Fiant suppos. No. vi. Incorporate the ichthyol in the wool fat and mix with cocoa butter and iodoform, then add the tannic acid. Sig.: Insert one suppository twice daily after a warm antiseptic boric acid solution.

Intestinal Toxemia.

The *Indian Med. Rec.*, in an article on intestinal toxemia, regards it as a primary source of much disease, due to the absorption of gases and fluids from the intestinal canal, causing the destruction of the red corpuscles, and irritation of the

nervous system. The symptoms are headache, cardiac irregularities, insomnia, etc. The indications are to remove the poisonous material by frequent colonic flushings. For this purpose large enemas of normal saline solution may be employed.

Supplementing this treatment medicines acting on the liver and small intestine should be given in order to produce a sufficient flow of bile. The diet must be carefully guarded. Fresh fruit juices, nourishing broths, rice and cereals thoroughly cooked, baked apples and bananas, broiled beef pulp and asparagus seem to agree in the majority of cases.

Medicolegal.

Waiver of Privilege When Several Physicians Are Employed.—Section 836 of the New York Code of Civil Procedure, in effect, provides that the information acquired by a physician while attending a patient may be disclosed only when the provisions of Section 834 on the subject "are expressly waived upon the trial * * * by the patient." The United States Circuit Court of Appeals, Second Circuit, holds, with regard to this, in Metropolitan Street Railway Company vs. Jacobi, that it is not at liberty to depart from the construction placed upon the statute by the state court of last resort. Hence, it holds that the testimony of a physician who had been employed professionally by the latter-named party was properly excluded, when it was sought to elicit from him information received by him while attending such party in a professional capacity, the waiver claimed consisting in the fact that the party had called upon the trial as witnesses in his behalf three physicians who had attended him professionally, and who had given testimony in respect to the nature and extent of the injuries which were the subject of the action. But it says that if their testimony, or the testimony of any of them, had been in respect to information obtained at the same consultation or occasion at which the first-mentioned physician was present, the party would have waived the privilege to insist that such physician should remain silent, according to the construction given to the code provisions by the highest court of the state.

Burden of Proof in Malpractice Case.—The Supreme Court of Georgia holds, in Georgia Northern Railway Company vs. Ingram, that in an action for damages alleged to have been caused by the malpractice of a surgeon, the burden is on the party suing to show a want of due care, skill, or diligence, and also that the injury resulted from the want of such care, skill or diligence. Indeed, it says that, so far as it is informed, the authorities are uniform to this effect. Nor does it consider that the rule as to the burden of proof was changed by the fact that the surgeon who was alleged in this case to have been neglectful and unskilful in his treatment of the party who brought the action (Ingram) was not himself sued, but the action was brought against the railway company, under the allegation of the party that the company had contracted with him and other employes that, for 50 cents per month, it would furnish a skilled surgeon to attend him in case of sickness or accident. The testimony of this party and his witnesses was that the surgeon appointed by the company was called on Saturday and dressed his wound, saying there was no danger of losing the leg. He did not return until Tuesday or Wednesday. After that he sent his brother to dress the wound. This brother washed the wound in water so hot as to give the patient great pain, and then bound it so tightly with bandages as to cause excessive pain and suffering. The patient suffered greatly for two days, when the surgeon returned, and upon examining the wound, said it was in bad condition. On Saturday he amputated the limb, saying that his brother had bound it up too tight, though this last was denied by the surgeon. Under these circumstances, the court holds that the party failed to carry the burden of proof imposed upon him by the rule stated, and that the evidence did not authorize a verdict in his favor. Even if it be considered that it was negligence on the part of the surgeon to send his brother to dress the wound, who used on it very hot water, and bandaged it so tightly as to cause the patient great pain, as testified, the court says that the evidence utterly failed to show that the necessity for the amputation was caused thereby. Nothing was shown in the evidence as to who the surgeon's brother was, whether he was a physician, or whether he had any skill or experience in dressing wounds. True, the petition alleged that this brother was merely a young medical student; but the company's answer denied this, and the evidence failed to show it. So far as could be told from the brief of evidence, he might have been an expert surgeon. But however this might be, the court does not think the party sustained the burden of proof upon him by showing a want of due care, skill, or diligence, and also that from such want of care, skill, or diligence resulted the necessity for the amputation of his leg; in consequence of which it reverses a judgment rendered in his favor.

Expert Testimony—Want of License—Malpractice Damages.—The Supreme Court of New Hampshire holds, in the malpractice case of Challis vs. Lake, that, to discredit the testimony of the party sued, who claimed and testified that he had had much experience in the practice of medicine, and was an ordinarily skilful physician, it was within the legitimate range of cross-examination, at least, to prove by his admission on the witness stand that he did not have a license, obtained after an examination as to his medical knowledge, to practice medicine when he had charge of the case in question, as required by law. That fact, if unexplained, would afford ground for the argument that his testimony as to his qualifications was entitled to little weight. The evident purpose of the statute was to prevent incompetent persons from practicing medicine and imposing upon the credulity of their unsuspecting patients. The expert testimony of a physician who has not complied with the statute and obtained a license might not be entitled to as much weight as it would otherwise receive, and the degree of credibility attached to it by the jury would often depend very much upon the reason he might assign for his noncompliance with the statute. If he honestly believed that for some reason he was exempted from a compliance with the statutory provisions, the fact that he did not have a license might have little weight upon the question of the soundness of his expert testimony. But the admissibility of the evidence on cross-examination, in disparagement of his credibility as a witness, could not be doubted. The question of the validity of the statute was immaterial. Whether it was void or not, it was competent for the jury to consider the unexplained omission of the witness to obtain a license, upon the question of the reliability of his testimony. Such a reason for his omission as that he was unable to pass the required examination, or that he failed on some ground to satisfy the regent and the board of examiners that he was entitled to a license or registration as a physician, if true or if believed by the jury, would have the same logical and legal effect in disparagement of his direct testimony, whether the statute were constitutional or not. That two nurses were not allowed to testify how the treatment of the party sued in cases of the kind in question differed from that of other physicians, the court holds, was not error. While they had nursed in cases where he had charge and in cases where other physicians attended, it says that the proposed testimony may have been excluded on the ground of remoteness, there being nothing in the case indicating that such was not the fact. Whether it might not have been properly excluded on other grounds, it says that it was unnecessary to decide. Loss or injury directly and naturally resulting from the fault or negligence of the party sued in his treatment of the case, the court holds, was the legitimate measure of the damages recoverable. His liability was not confined merely to damages for injuries which an ordinary man might have expected would follow from the negligence proved, but included damages for such injuries as were the direct and natural result thereof, as disclosed by the evidence. As the jury was instructed, this would include payment for all loss of time and for suffering that was caused by the fault of the party sued, but not for the loss of time and the suffering which were the result of the patient's confinement, it being a confinement case.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

New York Medical Journal, March 15.

1 The Medical History of Dr. Samuel Johnson. Francis R. Packard.
2 *Address, Medical Society of the State of New York. Henry L. Elsner.
3 *Uric Acid: Its Sources and Effects. James Tyson.
4 Chancroid of the Eyelid. Matthias L. Foster.
5 *Trifacial Neuralgia and Its Treatment. Henry T. Barber.
6 A Case of Ankylostomiasis (Uncinariasis) Occurring in a Sailor. Joseph B. Greene.

Medical Record (N. Y.), March 15.

7 *Specific Medication. Andrew H. Smith.
8 Melancholia Simplex and Melancholia Transitoria Simplex. Ralph L. Parsons.
9 A Few Remarks on Disease of the Skin, with Relation to General and Special Therapy. S. Sherwell.
10 A Case of Otitic Brain Abscess and the Lessons which it Obviously Teaches. Robert Lewis, Jr.
11 Apparent Cure of Malignant Ulcer of Breast After Oöphorectomy. Wm. H. Simmons.

Boston Medical and Surgical Journal, March 13.

12 *Alcohol in Therapeutics, the Value of Alcohol as a Therapeutic Agent in Medicine. Henry F. Hewes.
13 *A Clinical Estimate of Alcohol as a Therapeutic Agent. F. C. Shattuck.
14 *The Therapeutic Value of Alcohol. E. N. Whittier.
15 *The Influence of Alcohol on the Human Organism. Eldridge G. Cutler.
16 *Practical Experience with Hydrotherapy. J. J. Putnam and G. W. Fitz.

Philadelphia Medical Journal, March 15.

17 *Medical Education. John B. Deaver.
18 *The Report on a Case of Obliterative Pericarditis with Hepatic Enlargement and Ascites. Edward W. Becker.
19 *Cerebral Apoplexy. Edward D. Fisher.
20 Hepatic Insufficiency. H. Richardson.
21 *The Progress of Knowledge Concerning Venom and Antivenene, a Synoptical Review of the Literature of the Past Fifteen Years. (Continued.) Joseph McFarland.
22 *A Study of the Cases of Accidental X-Ray Burns Hitherto Recorded. (Concluded.) E. A. Codman.

Medical News (N. Y.), March 15.

23 The Medical Department of Tulane University of Louisiana.
24 *The Craig Colony Prize Essay—Serotherapy in Epilepsy. (Concluded.) Carlo Ceni.
25 Acute Influenzal Nephritis in Childhood. B. K. Rachford.
26 A New Method of Locating Foreign Bodies by Means of the X-Ray. Lewis G. Cole.
27 *The Rate of Growth of Epithelium of Ulcers; Observation of 100 Cases at the Vanderbilt Clinic, N. Y. Sigmund Deutsch.

American Medicine (Philadelphia), March 15.

28 *The Use of Borax and Boric Acid as Food Preservatives. Victor C. Vaughan and William H. Veenboer.
29 *The Examination of the Blood in Relation to Surgery of Scientific but Often of No Practical Value and May Misguide the Surgeon. J. M. Baldy.
30 *Sprue or Psilosis in Manila. (Concluded.) William E. Musgrave.
31 *The Value of the Urea Estimation. E. B. Behrend.
32 Pemphigus, with a Report of a Case of Pemphigus Foliaceus Involving the Mucous Membrane of the Respiratory Tract. Witten B. Russ.
33 Modern Treatment of Drug Habituation. Frank R. Searles.
34 *The Diagnostic Importance of a Digital Examination in Diseases of the Rectum. Herman A. Brav.

Cincinnati Lancet-Clinic, March 15.

35 Diarrhea—Diagnosis and Treatment. George J. Monroe.
36 A Hernia-tic Family. J. F. Baldwin.

Medical Age (Detroit, Mich.), February 25.

37 The Physician as a Business Man. J. Howe Adams.
38 Report of a Case of Fracture of the Internal Table with Laceration and Contusion of the Temporal and Sphenoidal Lobes. Wm. G. Stearns.
39 *Cholecystotomy—Some Experiments with the Biliary Flow. Angus McLean.

Pediatrics (N. Y.), March 1.

40 Scarlet Fever. W. W. Robertson.
41 A Case of Spina Bifida. F. C. Wilson.
42 Anomalies of the Prepuce in the New-Born. Wm. J. Greanelle.

American Practitioner and News (Louisville, Ky.), February 15.

43 Surgery of the Urinary Bladder. John R. Wathen.
44 Notes on Venereal Disease. C. C. Mapes.
45 Report of a Case of Cancer of the Stomach. William A. Jenkins.
46 Cholelithiasis. Carl Weldner.

Medicine (Detroit, Mich.), March.

47 Etiology of Carcinoma and Auto-Implantation of Carcinoma Cells of the Stomach and into the Lung. Gustav Fütterer.
48 Diagnosis and Treatment of Laryngeal Tuberculosis. P. S. Donnellan.
49 Some Points Concerning the More Modern Conception of Diseases of the Heart. J. B. Herrick.
50 *Some Observations on the Efficiency of Nargol in Ophthalmologic Practice. Leigh E. Schwarz.
51 Primary Sarcoma of the Iris. Albert B. Hale.
52 A Fatal Case of Head-tetanus Following Eye Injury. C. P. Pinckard.
53 Diagnosis and Treatment of Cancer of the Rectum. Geo. G. Ross.
54 Tympanitic Abdomen with Fluid. W. Ramsay Smith.

International Medical Magazine (N. Y.), February.

55 Neurasthenia: Its Etiology, Symptomatology and Treatment A. D. Rockwell.
56 The Drug Treatment of Neurasthenia. D. R. Brower.
57 The Educational Management of the Neurasthenic. Edward B. Angell.
58 Hydrotherapy in Neurasthenia. Simon Baruch.
59 Treatment of Neurasthenia. Wharton Sinkler.
60 Relations and Distinctions of Hysteria, Neurasthenia and Hypochondriasis. Samuel Wolfe.
61 The Sanatorium Treatment of Neurasthenia. Curran Pope.
62 Neurasthenia and Hysteria in Diseases of the Nose, Throat and Ear. E. B. Gleason.
63 The Value of Massage in Neurasthenia and the Best Method of Applying it in that Disease. G. Savary Pearce.

American Journal of the Medical Sciences (Philadelphia), March.

64 *The Medical and Surgical Aspects of Gangrene of the Lung. Frederick A. Packard and Robert G. Le Conte.
65 Scarlatinous Empyema of the Anterior Superior Squamomastoid Cells. Charles H. Burnett.
66 Empyema of the Frontal Sinus: Some Observations on Its Treatment. George L. Richards.
67 The Diagnosis of Latent Frontal Sinusitis. George E. Shambaugh.
68 Causes of Salpingitis Other than Gonorrheal. John B. Deaver and Edward K. Moore.
69 An Experimental Investigation of Puerperal Pyemia. F. W. Gaertner.
70 *Report of a Case of Hemianesthesia of Over 8 Years' Duration, Resulting from Destruction of the Carrefour Sensitif and Lenticular Nucleus Without Direct Implication of the Optic Thalamus. F. X. Dercum and William G. Spiller.
71 *The Importance of Proper Dietary Regimen in the Treatment of Chronic Heart Affections and an Attempt to Formulate Some Rules Therefor. H. Illoway.
72 *A Contribution to the Study of Primary Sarcoma of the Tail of the Pancreas. M. S. Kakels.
73 *The Clinical Significance of a Chronic Urethral Discharge. H. M. Christian.
74 *The Sanitary Measures to Be Adopted After Floods. George A. Soper.
75 Report of a Case of Dermoid Cyst of the Mouth; Critical Review of the Literature. Charles G. Cumston.

Bulletin of the American Academy of Medicine (Easton, Pa.), February.

76 *Reciprocity in Medical Licensure from the Standpoint of the Physician Who Changes His Residence. Edward Jackson.
77 *Is the Demand for Reciprocity Based upon Fact or Fancy? Charles McIntire.
78 *The Desirability of Reciprocity in Medical Licensure. J. N. Hall.
79 Away with Reciprocity. Charles McIntire.

Illinois Medical Journal (Springfield), March.

80 The Function of the Tonsils, with a Few Suggestions Regarding the Differential Diagnosis of Tonsillary Affections. R. C. Matheny.
81 The Operative Treatment of Saddle-Nose with Two Illustrative Cases. Emanuel J. Senn.
82 The Medical Aspects of Appendicitis. W. E. Gilleland.

Canada Lancet (Toronto), February.

83 *On a Case of Enlargement of the Middle Lobe of the Thyroid. J. G. Adami.
84 *Foreign Bodies in the Vermiform Appendix—New Surgical Points. J. Coplin Stinson.

Woman's Medical Journal (Toledo, Ohio), February.

85 Smallpox and Vaccination. Ellen Heise.
86 Report of Case of Imperforate Hymen. Jessie F. Shane.
87 Pathology of the Placenta, Its Effects upon the Fetus. Amelia Gnekow.
88 Dietetic Treatment of Chlorosis. Ella Mead.

Louisville Monthly Journal of Medicine and Surgery, March.

89 *The Time for Operation in Appendicitis. A. M. Cartledge.
90 *How, Where and When to Amputate. Ap Morgan Vance.
91 Pernicious Vomiting in Pregnancy. John G. Cecil.
92 X-Rays in the Treatment of Cases of Lupus and Epithelioma. James B. Kinnaird.

Medical Summary (Philadelphia), March.

93 Sulphate of Quinin. George J. Monroe.
94 Heroin—Salophen—Aspirin. Wm. R. D. Blackwood.
95 Suffocative Catarrh. M. G. Price.
96 About Asthma, Alkaloids and Other Things. Geo. W. Candler.
97 Is Hydrophobia a Myth? Wm. A. Armstrong.
98 The Difficulties of Treating Enuresis in Children. (Concluded.) M. McCreary.
99 The Therapeutic and Prophylactic Importance of Fats in Tuberculosis. J. M. Cooper.

Maryland Medical Journal (Baltimore), March.

100 *The Care of Consumptives in State and Private Sanatoria in Massachusetts. Vincent Y. Bowditch.
101 Laennec. William S. Thayer.

Transactions of Chicago Pathological Society, January 13 and February 10.

102 The Absorption and Incrustation of Elastic Fibers in Giant Cells. Ludvig Hektoen.
103 Cholestrin Crystal Giant Cells. E. R. Le Count.
104 Demonstration of Microscopic Specimen of Spongifying of the Labyrinth. J. Holinger.
105 The Effect of Formalin upon Tuberculous Guinea-Pigs. Martin H. Fischer.
106 An Unusual Bacterial Grouping. Mary Hefferan.
107 Demonstration of Specimens from a Case of Death from an Adrenal Tumor. E. R. Le Count.

Pacific Medical Journal (San Francisco), March.

108 Dr. Wm. Lee Howard on "The Perverts." R. W. Shuffeldt.
109 The Newest Physiology of Digestion in Relation to Treatment. Alfred W. Perry.
110 Recurrent Gastritis—Gastro-enterostomy. Ernest Hall.
111 The Efficacy of Antidiphtheric Serum—A Few Plain Facts from My Note-Book. E. A. Crain.

Medical Mirror (St. Louis), January.

112 *Pleurisy. Errors in Diagnosis and Treatment. William H. Porter.
113 *The Treatment of Bronchitis and Coughs in General. I. N. Love.
114 The Treatment of Amenorrhea with Reports of Cases. Milton P. Creel.
115 Notes from New York Post-Graduate Clinic (Hernia). Dr. De Garmo.
116 Buffalo Lithia Water. Robert H. Patton.

Merck's Archives (N. Y.), February.

117 Should We Use Heart Stimulants in Acute Diseases? Ferdinand Schreiman.
118 Ichthyol in Tuberculosis. Charles F. Spangler.

Medical Review of Reviews (N. Y.), February 25.

119 *Eye-Strain, Its Consequences and Treatment; The Report of a Few Interesting Cases. James J. Mills.

Toledo Medical and Surgical Reporter (Toledo, Ohio), March.

120 Indications for Gastro-enterostomy and Its Technique. Theodore A. McGraw.
121 Pruritus Ani. Edwin Nichols.
122 How to Make the Clove Hitch. J. T. Woods.

Fort Wayne Medical Journal-Magazine, February.

123 Insanity as It Concerns the General Practitioner. D. L. Miller.
124 Alcohol in Carbolic Acid Poisoning. A. C. McDonald.
125 *Angioneurotic Edema: Report of a Case. Horatio Chisholm.

New Orleans Medical and Surgical Journal, March.

126 *A Suggestion in the Technique of Suprapubic Lithotomy. Charles Chassaignac.
127 *Some Surgical Cases Treated with a Simple and Very Effective Antiseptic Dressing. E. L. Sharpe.
128 Dislocation of Lens into Anterior Chamber in High Myopia—Recovery After Removal with Scoop. Drs. Bruns and Robin.

Medical Dial (Minneapolis), March 1.

129 The Problem of a Safe and Adequate Water-Supply for the Twin Cities. Leo M. Crafts.

Memphis Medical Monthly, March.

130 *Extra-Genital Chancres, with Illustrations and Report of Cases. M. Goltman.
131 The Kidney as a Pathologic Factor. G. W. Penn.
132 The Bacteriology of Typhoid Fever. William Krauss.
133 Typhoid Fever. B. G. Henning.
134 Diagnosis and Treatment of Diphtheria. John P. Bates.
135 Preparation of the Patient for Surgical Operation; Anesthesia and the Prevention of Shock. Stephen E. Rice.

Medical Times (N. Y.), March.

136 Urinary Fever. George L. Harbour.
137 Puerperal Septicemia. E. M. Pond.

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2. See abstract in THE JOURNAL of Feb. 8, p. 412.

3. **Uric Acid.**—The origin of uric acid and its action in the system are noticed by Tyson, who finds that it is one of the end-products of animal metabolism just as much as urea, but not an intermediate product as was at one time supposed. It is remotely derived from the food ingested. This also is analogous to urea. He goes over the pathologic significance of uric acid and finds that its defective elimination in gout is probably due to some functional or organic defect of the kidneys, that its harmfulness is limited to the formation of concretions, and ascribes to the alloxuric bases the harmful phenomena of the so-called uric acid lesions. The so-called uric acid lesion exists in the excess of the sum of uric acid and the alloxuric bases and this is due to perversion of nuclein metabolism, which may be brought about by excessive or deficient oxygenation, the former producing both uric acid and alloxuric bases, and the latter an excess of alloxuric bases only. A large number of ills that are charged to uric acid are not thus caused, in the author's opinion. The so-called uric acid diathesis is probably hereditary, but is aggravated and produced by over-eating and especially by the use of alcohol. As regards treatment, abundance of alkaline or plain water between meals, the exclusion of proteid foods, to an extent sufficient to eliminate uric acid from the urine, accompanied by a liberal amount of outdoor exercise, is still the treatment of the uric-acid diathesis. In conclusion, he quotes Croftan's outline of the treatment, as published in THE JOURNAL A. M. A. in 1899.

5. **Trifacial Neuralgia.**—Barber reports a case of pure tic douloureux relieved by 1/10 mg. dose of aconitin given every four hours until the patient had taken ten granules, followed by iron and simple tonic. The conclusions he deduces are: "1. That aconitin does really seem to be a specific; and 2, that its action must be maintained by a restorative."

7. **Specific Medication.**—Smith argues for the use of specific medication, quoting the use of creosotal in pneumonia, which he considers one of the greatest life-saving discoveries of the century just ended. He also mentions the use of carbolic acid for la grippe and claims that its comparative innocuousness in some conditions has been shown by observations of his own some years ago. Other remedies are also mentioned.

12. **Alcohol as a Therapeutic Agent.**—Hewes, in a carefully written paper, maintains that alcohol is a narcotic or anesthetic and that its action on the nerve cells is directly poisonous. He finds that as a stimulant it is insufficient and in continued doses is not a tonic to nerves or muscles. As a narcotic it has a certain value, but whether it is a useful narcotic and, if useful, in what cases, must be determined by therapeutic experience. It is to this special influence of alcohol, he holds, that the majority of medicinal effects, variously interpreted as stimulative or tonic, are due, always excepting the momentary irritant action. As a stomachic he finds it of little value. It may stimulate the appetite by its pleasant taste and slight irritant action. As a food in health it can play no part. In pathologic conditions the matter may be different and there may be cases where no other food can be taken. In fever, oxidation is more active and this may account for the commonly reported observation that patients with fever can take more alcohol than people in health. This, however, is only a question of an immunity to the poison, not the loss of the poisonous action of the drug. His study of the pharmacology and experimental work upon alcohol proves to him that it is never a heart stimulant or dynamogenic for nerve and muscle, but always a depressant when used continuously. He would not say that it has no value as a therapeutic agent in medicine or that its medicinal use is irrational, but he thinks that careful observation has led to a gradual restriction of its use so that the quantity given per capita is less than one-half that employed twenty years ago and that it will be still further reduced.

13. Shattuck affirms that in his experience alcohol is of value in disease; that many people can take it in large doses without the ill effects noticed from it in health and that its use as a medicine in acute diseases involves very little risk of establishing a vicious habit. He says there is not sufficient proof of the uselessness of alcohol to warrant us in running contrary to the mass of evidence on which belief in its value rests.

14. Whittier follows the same line of thought as Shattuck.

15. Cutler holds that alcohol is no protective against infection, no antipyretic, no stomachic, and no analeptic and its action as a food is embarrassed by its poisonous quality. That it can favor the immunization process is denied. His article takes the extreme anti-alcohol view as regards its value as a food or a medicine.

16. **Hydrotherapy.**—Putnam and Fitz report the results of experiments to determine the physiologic effects of different kinds of baths. They describe their methods, including the use of a hot cabinet and a circular rain douche. The effect of the hot bath is a marked diminution in the blood pressure, sometimes amounting to as much as 20 mm. of mercury. The normal pressure is almost immediately regained on leaving the hot bath, owing to the reverse process of peripheral constriction

due to the chill of rapid evaporation of water from the surface of the body. The pulse rate is markedly changed. We must recognize that the baths exert a strong influence on the control of the heart's rapidity and force and of the vasomotor changes of the vessels. Further experiments will be required, however, to clear up all the physiologic effects of the various modifications of the bath, especially as regards temperature and blood pressure. The clinical conditions which were tested were neurasthenia, tabes and other spinal diseases, paralysis agitans and neuritis. In neurasthenics he thinks this form of treatment is usually of distinct service. The method has been the employment of one or another form of so-called tonic baths, varied to suit the individual case. The mental effects, he thinks, have had much to do with the action and seem to give a sense of stimulation of relaxation, aside from any action that may be called tonic. Benefit has also been obtained in tabetic cases, also in spastic paraplegia where heat and pressure have been relied upon rather than greater degrees of cold. One patient with neuritis improved, another did not, while those with paralysis agitans have been better so far as general nutrition and a sense of well-being are concerned, but here there was a moderate amount of real gain. He believes that the education in an institute gives the patients ideas how to treat themselves at home, but he protests against the over-use of stimulation by friction in such treatment.

17.—This article appeared in THE JOURNAL of March 15, p. 683.

18. **Obliterative Pericarditis.**—After reporting cases and reviewing the literature Becker comes to the following conclusions: 1. Pseudo-cirrhosis of the liver due to pericardial adhesions is a distinct entity. 2. In all cases of this condition at autopsy the pericardial sac has been found obliterated. 3. Autopsies have shown in all recorded cases that the ascites is due to passive congestion of the liver, causing a connective tissue formation with subsequent contraction and obstruction of the portal circulation, the result of obliterative pericarditis. 4. In all cases of enlarged liver with ascites without edema or enlarged spleen, a very careful examination should be made of the heart to determine whether the symptoms are not due to chronic pericarditis. 5. The presence of ascites with enlarged liver and systolic retraction of the precordium together with absent or later appearance of edema of ankles is of great diagnostic value in determining the presence of chronic pericarditis.

19. **Cerebral Apoplexy.**—Fisher calls attention to the importance of alcohol and syphilis in the etiology of cerebral apoplexy and notices the symptoms, giving special attention to certain unusual forms. Among these he notices cases occurring in elderly persons where temporary paralysis occurred, which he explains by a stasis in the cerebral circulation, resulting in edema or what was formerly called serous apoplexy and other cases where the symptoms exist and yet no cerebral lesion is found, which he credits to a similar pathology. Epileptic seizures occurring in elderly persons and in those who have been free users of alcohol or have had syphilis are also traceable to this special condition. Pain followed by hemiplegia in the paralyzed members he believes is entirely cerebral or psychical. There is no reason why there should be pain as far as the peripheral nerve supply is concerned. He considers the Babinski reflex of value and says the best method to induce it is to use a sharp needle, scratching it first under the first metatarsal joint, and, if not successful, using it on the external side of the sole of the foot. As regards treatment, he would in ordinary attacks of cerebral apoplexy use free purgation and absolute rest, and administration of no drugs unless collapse shows itself. If the pulse is full and bounding, bleed through the veins, that is, administer aconite, but never use the lancet. If there is evidence of collapse with feeble pulse, administer digitalis or even strychnia and whisky. Such cases are usually due to thrombosis or embolus. As a rule, however, he favors doing little but giving absolute rest and meeting special contingencies as they occur. The most important time for treatment is in the prodromal stage when, if we have made out the etiologic factor, the indications are manifest.

21. **Antivenene.**—McFarland's review of this subject is apparently concluded in this issue and seems to be about as thorough a review of the literature as has been published.

22. **X-Ray Burns.**—The following are the conclusions of Codman's article: 1. The frequency of *x*-ray injuries has been much exaggerated by the medical press owing to the wide publicity given to many early cases. 2. The writer has been able to collect somewhat less than 200 cases, less than half of which were serious, and about one-third of which occurred in *x*-ray workers. 3. Judging from the experience with these injuries in Boston, it is the writer's opinion that a fair proportion of the severe burns are included in this series, while the dermatitis of skiagraphers is less well represented. 4. At a maximum estimate it is safe to say that not 1 patient in 1000 has been injured in the past five years by an *x*-ray examination and in the past year not 1 in 10,000. 5. More than two-thirds of these injuries occurred in the first two years of the use of the *x*-ray. Only one mild case is reported as occurring in the current year, those cases in which the exposure has been made for therapeutic purposes being excluded. 6. The cause of *x*-ray injuries is not definitely known. It is some form of energy closely allied to the photographically active *x*-ray and radiates with it from the platinum terminal. 7. The primary injury is to the nerves controlling the nutrition of the skin. 8. There is no good evidence of injury to the deeper tissues without primary interference with skin. 9. The important factors which contribute to the production of *x*-ray burns are: the intensity of the current used to stimulate the tube; the quality of the tube; the distance and time of exposure; the idiosyncrasy of the patient. 10. The static machine is somewhat less likely to produce injury than other forms of apparatus. 11. From the data of the reported cases we can say that no burn has been produced by an exposure equal to or less than the equivalent of 5 minutes at 10 inches. 12. It is impossible from the data to say how intense an exposure must be to produce a burn, for a comparison of the cases shows that an inconstant factor or factors exist. 13. These inconstant factors are more likely to lie in the complex human organism than in the less complicated construction of the tube. 14. General experience has shown that soft tubes produce a more intense effect on the tissues than hard. 15. While we can not control these inconstant factors, therapeutic exposures will continue to be dangerous, and it is therefore important to record the exact conditions of the patient's local and constitutional idiosyncrasies, as well as those of the tube. 16. In cases of injury the time before the appearance of the first symptoms has varied from a few minutes to three weeks. Five cases have remained latent for over three weeks, two of these for five months. 17. It is impossible to predict the severity of the lesion from the time of its appearance after exposure. 18. The writer suggests 10 minutes at 6 inches from the platinum terminal, as a standard therapeutic exposure. This will make comparisons between the inconstant factors easier. 19. Unless signs of dermatitis appear within three weeks after the exposure, they are unlikely to appear at all. In one-third of the reported cases the appearance occurred within the first four days; in one-half the cases before the ninth day. 20. In the ordinary *x*-ray examination with fluoroscope or skiagraph, the operator takes the entire responsibility of injury; in exposures for therapeutic purposes the patient shares the responsibility.

24. **Serotherapy in Epilepsy.**—Ceni concludes his article in this issue, reporting his last two cases. His researches demonstrate to him that in epileptic blood there are two active principles of different nature and origin. "One of these principles circulates in a free state and is only endowed with toxic properties when injected into the organism of another epileptic. The toxic effects may be immediate and direct and may follow even small doses. The activity of this toxic principle is different in different individuals. The phenomena it determines are transitory in character. The other active principle circulates in the blood of epileptics, but only in a latent state. It is endowed with properties which have a stimulating power on the metabolic cells which are concerned with the elaboration of the epileptogenous toxic agents. These stimulating properties

appear only as remote consequences that take place as a result of repeated injections over a considerable period of time, with the blood serum of an epileptic into himself or into another. These stimulating principles can deeply modify nutrition and epileptic manifestations. Upon both they exert a slow progressive action which may be restoring and therapeutic or weakening and poisonous. Their diverse and opposite modes of action depend upon some peculiar organic condition of the individual injected and are practically unexplained. The organic condition of the patient in whom they are elaborated has no apparent influence on the different and opposite activities they may present. In the cases in which stimulating principles have restoring therapeutic properties, there always result a remarkable increase in body-weight and an improvement or total disappearance of disturbances of organic functions or of social life. The disturbances of psychic functions and the epileptic manifestations of whatever nature get much better or disappear entirely. The stability of these positive results is in a direct relation with the degree of physiologic reaction in the elements of nutrition. In the cases in which the said principles do not act favorably on metabolism, the serum injections are useless. If continued in the same manner as in the preceding cases, there results a diminution in weight and a getting worse of every disturbance of the organic or social life. The psychic functions become more impaired and the epileptic manifestations increase in number and intensity, sometimes to a marked degree."

27. **Growth of Epithelium of Ulcers.**—Deutsch reports the results of experiments made to ascertain the rapidity with which new epithelium will grow over ulcers or raw wounds and to deduce from the results obtained methods by which the varieties can be quickly healed. The following is the summary given: "The observation of these cases has shown that 1, the rate of the growth of epithelium is in direct proportion to the size of the ulcer; 2, in the majority of cases the average growth of epithelium is from 2 to 3.5 mm. per week; the range is 1.4 to 10.5 mm. (traumatic ulcers not included); 3, the time required to heal an ulcer is in no proportion to the duration of the ulcer; an ulcer of 4 months' standing does not heal quicker than one of 4 years' standing, other conditions being equal; 4, the rate of growth of epithelium in traumatic ulcers is extremely irregular; it is in no relation to the size or duration of the ulcer; the average growth per week is about 5 mm.; the range is from 1.4 to 8 mm."

28. **Meat Preservatives.**—Vaughan and Veenboer have tested the effects of borax on the system and have looked into the literature on the subject, coming to the following conclusions: "1. The use of borax or boric acid as a preservative in butter and cream in the quantities specified in the recommendations of the English Commission is justified both by practical results and by scientific experimentation. 2. The dusting of the surfaces of hams and bacon, which are to be transported long distances, with borax or boric acid, not exceeding 1.5 per cent. of the weight of the meat, is effective and not objectionable from a sanitary standpoint. 3. Meat thus dusted with borax or boric acid does not become slimy because the preservative thus used prevents the growth of aërobic, peptonizing micro-organisms."

29. **Blood Examinations.**—Baldy questions the reliability of blood examinations as indication for surgical practice. He says that the leucocyte count can not be relied upon even to indicate with any degree of accuracy inflammation, to say nothing of pus formation, and has collected cases to demonstrate this statement. Moreover, the possibility that change in the blood count may be due to some complication altogether apart from a surgical condition should not be neglected. Pneumonia, for instance, is too common a complication of typhoid to be overlooked when leucocytosis appears as an indication of perforation. He does not wish to decry the value of laboratory work, for it has developed many valuable facts, but we are still far from having any positive value or aid from leucocytosis in surgical diagnosis.

30. **Sprue or Psilosis.**—The article by Musgrave is continued, and he reports cases with pathologic findings, clinical features and serum reactions. The usual bacillus found was the colon bacillus, though in 2 of the 16 cases the bacillus dysenteriæ was also found. The latter is frequently difficult to find, although dysentery may be pronounced, in which it is the accepted etiologic factor. Streptococci were isolated in four cases and found in the stools in several others. Except the colon group, it is the pathogenic organism most commonly found. He concludes that sprue symptoms are nearly always found in the presence of other and well-known lesions, discoverable by careful clinical studies, aided by microscopic methods. Careful studies of these cases by modern methods may fail to indicate the additional etiologic factor. With our present knowledge it is more rational to consider sprue as a state or symptom-group (comparable to the typhoid state) occurring in the tropics in chronic diseases, especially those affecting the gastro-intestinal canal.

31. **Urea Estimation.**—Behrend advises attention to diet in cases of urea estimation. The patient should be put on a special diet, rigidly enforced. Ordinarily this is not attended to and the urea estimation is made from small samples of urine, and is comparatively valueless. The patient must also be kept in a state of rest. Where the urea secretion is found very high or low and persisting so, we know that it is abnormal and usually associated with grave symptoms. Difficulty is only experienced when the estimation runs between 20 to 40, and when some defect in nitrogenous metabolism is suspected. He believes that with attention to these points the method is as close an approximation to the more exact methods as time and training of the general practitioner will permit.

34. **Rectal Diseases.**—Brav insists on the importance of digital examination in rectal diseases, maintaining that by it we can detect all pathologic changes occurring there excepting internal hemorrhoids. The internal opening of the fistula can be felt as a small pit or slight depression in the mucous membrane, generally more or less circular in shape, except when it originates from a tear by a foreign body or a detachment of a polypoid growth. Impacted feces and anal fissure frequently cause intestinal neuralgia and cystic neuralgia, and only digital exploration can reveal the true state of the case. Submucous abscesses are also thus to be detected. In making digital examination it is advisable to introduce the finger at first only as far as the distal joint, and to examine every portion within reach, gradually going further. Pathologic conditions close to the anus have often been overlooked by passing the finger at once to its full extent. On account of the importance of reflex symptoms from this part digital examination is imperative.

39. **The Biliary Flow.**—In a patient on whom he had operated, McLean tested the biliary flow, its amount, periods, etc. The tube was kept in the gall-bladder for ten days and over three quarts of bile were drawn without the least bad effect apparent on the patient. The digestion was perfect, appetite good and stools natural. He finds that the greatest amount of bile passes into the gall-bladder during the quiescent period; "that the administration of calomel and podophyllin will increase the flow; that the first two hours after a meal only one dram was passed into the gall-bladder; that the specific gravity varied from 1010 to 1014; no difference was noticed after the calomel was administered, and it was highest after taking solid food; that the gall-bladder will contain only a small percentage of the bile secreted during the quiescent period and is not a necessary appendage; that bile flows more freely into the gall-bladder the further down the small intestines the food products pass; that the secretion of bile is continuous and the entire amount secreted is not necessary for perfect health."

50. **Nargol.**—This is one of the more recently produced organic silver preparations, a chemical combination of nucleinic acid and metallic silver. It is a non-irritating, non-coagulable and non-caustic substitute for silver. It contains 10 per cent. of metallic silver as compared with 63.5 per cent. in silver nitrate and 8.3 per cent. in protargol. Schwarz has used

it extensively and made clinical comparisons with protargol in some 200 cases, nargol being used in one eye and protargol in the other under as nearly the same conditions as possible. His general conclusions are as follows: "Nargol is relatively non-irritating, has considerable range as an astringent, as well as superior penetrating power, stability, and solubility, and is most efficient in 10 to 20 per cent. solutions, which should not be kept more than five weeks. The addition of a few drops of a one-per-cent. chloretone solution retards decomposition. In solutions of equal strength nargol is more stable and less irritating than protargol, and appears to be equally efficient."

64. **Gangrene of Lung.**—Packard and Le Conte's article contains a very elaborate description of a case, diagnosis and operation. Le Conte warns against opening a gangrenous cavity when adhesions of the pleural surfaces do not exist. The cavity should be emptied and examined to see if additional abscesses exist and these should be also looked after, but irrigation and curetting should be avoided. It should be wiped out simply with a gauze-guarded finger. The prognosis of these cases is almost always serious. The patient in this case finally succumbed to septicemia.

70. **Anesthesia.**—Dercum and Spiller's case of hemianesthesia of over eight years' duration seems to show in their opinion, "That organic hemianesthesia may be caused by a lesion in the *carrefour sensitif* and lenticular nucleus, without implication of the optic thalamus, except such as occurs from secondary degeneration. We emphasize the statement that in this case the inferior and external portions of the thalamus were intact. It seems to be the first case of the kind carefully studied in the literature. Whether or not the implication of the lenticular nucleus is necessary for the existence of organic hemianesthesia we can not determine by a study of our specimens. The integrity of almost the whole of the posterior limb of the internal capsule seems to indicate that the sensory fibers are located chiefly, if not entirely, in the area of the *carrefour sensitif*, or it may be that some sensory fibers pass through the lenticular nucleus. This view is in accord with the teaching of Edinger, inasmuch as he states that a portion of the sensory tract passes through the posterior third of the internal capsule and a portion through the lenticular nucleus. The lemniscus in its inter-olivary portion on the left side was one-fourth to one-fifth narrower than that on the right side and from this we conclude that the lemniscus on the left side had undergone retrograde atrophy. Some of its fibers, therefore, were probably cut in the lesion of the *carrefour sensitif* and lenticular nucleus."

71. **Diet in Chronic Heart Affections.**—Illoway shows that the stomach may exert an influence on the heart by the way of the vagus and mechanically by contiguity, and illustrates both of these actions by cases. The question of food, therefore, is of importance, and he says in regulating the diet for cardiopathics we must be guided by the well-established facts as to the nature of the various cardiac maladies and well-established facts of dietetics. In functional forms of heart disease all irritations of the stomach must be avoided. In organic conditions the mechanical influences also must be prevented. He therefore formulates certain rules: 1. All bulky and flatulent foods must be excluded, only foods that are readily and easily digestible allowed and all foods so cooked that their digestion is thereby facilitated. 2. All meals shall be small so that the stomach is not taxed too much nor greatly distended. The intervals between the meals must be so regulated that sufficient time is given the stomach to empty itself and to have an interval of rest before the next meal is taken. Diet tables are laid down by the author according to these rules.

72. **Sarcoma of the Pancreas.**—The difficulties of the anatomic conditions affecting the diagnosis of pancreatic disease are mentioned and a case reported by Kakels. In conclusion he says: The difficulties in the diagnosis of malignant pancreatic tumors are so numerous and great that we rarely find a case in literature where a correct diagnosis has been made before operation or necropsy. All or several of the symptoms (jaundice, ascites, pain, pressure symptoms, glycosuria, emaciation, etc.), together with the anamnesis, may lead to a probable diagnosis. Recognition in the living of the nature of the growth is almost impossible. Tumors of the pancreas are of greatest interest to surgeons, as it has been only of recent years that operations have been made for their removal. For surgical intervention the most important symptom is a palpable tumor. Cysts have been incised and their contents evacuated. Less frequently, however, have solid growths offered opportunities for surgical interference. Removal of solid tumors with a portion of the gland itself is exceedingly dangerous and rarely successful. Even if it were possible to extirpate the gland, aside from the insurmountable difficulties on account of the blood vessels and close proximity of the neighboring organs, the surgeon would not be justified, because, as Minkowski has shown, the entire removal of the gland is followed by rapid and fatal diabetes.

73. **Urethral Discharge.**—Christian discusses the different forms of urethral discharge, their appearance, microscopically and macroscopically, causes, etc., and gives a table showing the differences between true gleet, prostatorrhea and urethrorrhea.

74. **Sanitation After Floods.**—The sanitary conditions following extensive floods that have caused loss of life are noticed by Soper, who thinks the danger from decomposing animal and other matter is not so great as is usually supposed. The dangers of pestilence in these cases are not so much in the dead as in the living, among whom most insanitary conditions are likely to prevail. Sufferers from the flood should be aided and directed in their efforts to care for their own health. The causes of disease must be looked after, water supply and food inspected and damaged houses properly cleaned, aired and dried. Quicklime, chlorid of lime and carbolic acid will probably be the best agents, but bonfires should be made of all decomposing matter. He makes the special point that offensive or decomposing animal matter is not infectious and nausea is the most serious direct inconvenience to be caused by it.

76.—See abstract in THE JOURNAL, XXXVI, p. 1654.

77.—Ibid.

78.—Ibid.

83. **Thyroid Enlargement.**—Adami reports a case which is of interest on account of the rarity of the advanced condition of goiter enlargement affecting only the middle lobe and because of the symptoms to which it gave rise, viz., periodical attacks of dyspnea, which were mistaken for asthma and extended over eight years, and finally death from the same cause. The postmortem showed colloid or parenchymatous goiter of the middle lobe, the lateral lobes being atrophied and riding on the mass on either side above. He suggests that in districts where goiter is prevalent, as in the St. Lawrence Valley, periodical attacks of so-called asthma should be regarded as suspicious, the so-called cyanosis intensified by a certain amount of stridor should lead, in the absence of other explanation, to a careful examination of the lower portion of the neck.

84. **Foreign Bodies in the Appendix.**—From his study of the pathology, etc., of appendicitis, Stinson concludes that appendicitis is a surgical disease, the sooner operated upon the better. Early operation should give no mortality. In all appendicitis operations, the appendix should be removed unless irreparable damage is not done in the attempt. In local or general infection the abscess cavity or cavities should be thoroughly opened, all adhesions separated, all pus, shreds, etc., cleaned out, all inflammation of the pathologic omentum excised and all the infected portions of the abdomen thoroughly injected with hot water or hot saline solution and then dried with sponges. Fecal concretions are more apt to be present as the exciting cause of appendicitis than foreign bodies, though the latter are sometimes present. When, however, the appendix contains foreign bodies it is likely to be a pointed or a heavy body. Fecal concretions closely resemble some slight body like grape seeds or cherry stones, and a careful microscopic examination should be made to determine the exact nature. He believes operations such as those for appendicitis and other laparotomies can be as readily, safely and cheaply performed at the patient's home as elsewhere.

89. **Appendicitis.**—Cartledge believes in early operation, but if that is not possible, or the time is past, he thinks a patient living three days after the attack and not in hopeless general peritonitis has good prospects of recovery. We should be impressed with the idea that patients who die from acute appendicitis succumb, as a rule, within the first fifty hours of the disease. This paper was written because there are still general practitioners who believe that more cases of appendicitis recover without operation than with, and, second, because there are some surgeons who operate on every case of appendicitis seen, regardless of stage of disease or local or general conditions, excepting, of course, moribund cases. We take more risks in late operations than by the expectant plan. If the patient is still living and unoperated on at the end of three or four days, rest in bed, a light diet and administration of appropriate remedies will usually carry him over and the operation can be performed later. Cartledge long ago ceased to operate on general peritonitis cases; late operation is intended to prevent future attacks, early operation is intended to save the patient from the immediate attack. He rarely now operates on a condition of active adhesions and abscess. He would rather wait and take the chances of the adhesions melting down.

90. **Amputations.**—The method of amputation advocated by Vance is what he calls the modified circular antero-posterior flaps, for all operations. A few exceptions occur near the elbow and knee where some injury has so left the good tissue that to save the stump below the joint another method must necessarily be used. He describes the operation as follows: "An ordinary wide-bladed scalpel is held with handle at right angles to the axis of the limb and entered on the side, a little below the point of proposed bone section, cutting through skin and cellular tissue, parallel with the axis of the limb two inches, then across the limb in a slight curve, ending the incision opposite the starting-point. The ends of this incision represent the base of the anterior flap, which is dissected up. The posterior flap is made in the same way, but shorter, so that when they are brought together the line of closure will be back of bone or bones, as it may be. With the same small knife the muscles are divided circularly at right angles to the axis of the limb and on a vertical plane with proposed bone section, the flaps being held up by an assistant with two pairs of single-tooth forceps, care being taken not to incise the periosteum; with the same knife the interosseus space is divided half an inch below the point of proposed bone section and a long anterior periosteal flap is lifted, and held well up out of the way of the saw, which is introduced on a slant downward at an angle of 45 degrees, and the bone is divided for three-quarters of an inch and then re-entered vertically a little below the former point, both bones being completely divided. In this way the tibial crest is beveled before the limb is removed. Of course, when it is a thigh or arm amputation this is not called for. In a leg amputation the fibula is shortened three-fourths of an inch with the saw, slanting upward. It is my custom to use constant irrigation over the part while bones are being sawed to prevent possible heat necrosis. The vessels are carefully isolated and tied with plain catgut—No. 3 for femoral, No. 2 for tibial vessels. The nerves are drawn down and cut off square, three-quarters of an inch above the muscular section, the hemostatic bandage is removed, small vessels torsioned, oozing stopped by hot sponging with salt solution or by irrigation with same. The periosteal flap is sutured over the end of the bone by fine catgut. The flaps are accurately brought together by interrupted silkworm gut sutures, four or five being sufficient, then a continued fine suture of plain catgut closing perfectly the whole line of incision, except one-quarter inch at outer angle, where a short rubber drainage tube is introduced. A full aseptic dressing finishes the operation. At the end of 24 or 48 hours the drain is removed, and a second dressing applied, which is left on until the seventh day, when the silkworm gut sutures are removed and the stump is found firmly healed." The question as to where to amputate can be answered in a few words. The point of selection for the leg is 7 inches from the floor or 4 inches above the ankle joint. No operation between this point and the mid-metatarsal region is surgical unless it is perfectly evident that an artificial limb can not be obtained. In all operations between this point and 4 inches below the base of the patella the old rule of save all you can should be followed. The point of selection above the knee is 3 inches above the patella. All operations between the site of the last-mentioned tibial and the first femoral are unsurgical without reserve. Above this point of selection the old rule of conservatism should be followed, excepting in malignant disease, when it is a question whether to do disarticulation in the hip, or leave sufficient bone for an artificial limb, and as a rule he does the latter. The question when to amputate is a little harder to answer. In most cases it is easy, but occasionally, difficult. If the surgeon thinks that there is a chance that the result of conservatism would be inferior to an artificial limb he should amputate, especially if he thinks the effort to save the limb is attended with greater risks. The patient frequently decides the question for him, but often disastrously. The difficulty then arises in cases of chronic bone disease of the ankle and knee. The chances of getting good results in conservatism in these is in proportion to the age. All malignant disease of the bones, joints or other parts call for amputation, excepting some of the skin cancers, the rules being to get well above the proximal point. Amputations for convenience are often indicated, the patient being more comfortable without the useless limb and with an artificial one. Frequently patients are thus converted from helpless cripples into useful members of society. In amputations of the hand or arm the rule of save all you can is to be followed, especially in laboring men.

100. **Tuberculosis.**—Bowditch gives his experience in Massachusetts with the sanatorium treatment of tuberculosis, showing that even in that climate with the unfavorable conditions presumed to exist in the region where the disease originated, it has been arrested in a progressively increasing proportion of cases. Of the incipient cases discharged during the past year in 79 per cent. it was arrested. Relapses seemed comparatively rare. Patients from the sanatorium going home distribute the acquired notions in regard to the hygiene of this disease and he gives a striking instance of this where a man, whose recovery excited the interest of his neighbors, began a crusade against the unhygienic methods which he found. Before long there was scarcely a family in the street where he lived that were not following his instructions.

112. **Pleurisy.**—Porter reports several cases of pleurisy, with purulent effusion, that show the accuracy with which most cases can be recognized, especially if the aspirating needle is used, but also how at times it is almost impossible for the best-trained diagnostician to be absolutely certain. They also show that diagnostic errors may have possible fatal results, especially if the most scientific methods of treatment are not adopted early. They also demonstrate the good results following resection of the rib and cleansing of the pus cavity. Small valvular openings do not give the same good results.

113. **Bronchitis.**—Love does not accept unconditionally the germ theory of bronchitis, but holds that changes of diet, disturbed digestion, constipation, perverted secretions and exposure to cold produce conditions which may be particularly favorable to the entrance of these organisms. We must bear in mind that the cause in the majority of cases has been the chilling of the surface of the body, which disturbs the circulation and causes stasis in various parts of the body, especially in the bronchial mucous membrane. We must not ignore the general torpor of the glandular system. As a rule, after investigating the case thoroughly we can use a purgative to get rid of the irritating matter and accumulated ptomains. In further treatment he recommends the use of oil of turpentine on a lump of sugar given every two or three hours as one of the best stimulants of the glandular system. He would also use local applications of turpentine to the chest. The temperature should be watched, and if very high, cold baths are demanded. In children who can not expectorate, emetics will be required, as the secretion should be thrown off. He also advises stimula-

tion at proper times, giving one or two teaspoonfuls of whisky, glycerin, malt extract and honey. Another important step is the securing of rest, bearing in mind that we must not check secretion. To do this we must relieve the irritating cough. He has found heroin combined with ammonium hypophosphite, hyoscyamus, white pine bark, balsam, etc., excellent for this purpose. In making cough mixtures we should avoid syrups and we should not administer depressing remedies or those disturbing to the digestive tract. Sugar induces fermentation and disturbs digestion, which is against its use. We should also impress our patients with the importance of exercising their will power along with the medication to control cough.

119. **Eye Strain.**—Mills reports cases of headache due to eye strain relieved by operation. He thinks that headache from ocular defects are almost as frequently due to heterophoria as to refractive errors and that the former condition does not receive the attention it deserves. Imperfect equilibrium of the ocular muscles is not in most cases due to errors in refraction, though in the lowest degrees of the latter we find the highest degrees of the former, but before surgical procedure is adopted refractive errors, if they exist, should be relieved. Tenotomy should be employed only after a series of thorough and searching examinations.

125. **Angioneurotic Edema.**—Chisholm reports a case where the throat was involved and the conditions became alarming. Strychnin and nitroglycerin given hypodermically seemed to have no effect and he had resort to an atomizer with adrenal chlorid solution at full strength. In about two minutes the condition was markedly improved, respiration in five minutes becoming easy and natural. The eyelids and eyes were also affected and a drop or two was used there with pleasing effect. The patient was directed to swallow what remained in her mouth. The edema lessened very considerably over the body during the next two hours, itching was relieved and the face resumed its normal proportions, though there was still some slight traces of the tension that the parts had undergone. A slight return at night was relieved by the same treatment and another the next afternoon. This seems to have been the last return of the condition. The case seems worthy of notice on account of the usual unsatisfactory treatment in such cases.

126. **Suprapubic Lithotomy.**—The technique suggested by Chassaignac consists in the following principal features: "1. Introduction of stitches in a special manner to hold the bladder while it is incised and the calculus extracted. 2. Utilization of the same stitches in the closure of the bladder. 3. Formation of temporary drain by the collection of ends of catgut stitches. 4. Drainage by means of the Pezzer self-retaining catheter during the healing process." The details are given at length, but for lack of space can not be reproduced here. He thinks this method is of special advantage in cases where it is advisable to close the bladder completely, but it might be used on occasions where it may be thought best to close it only in part, using the two supporting threads as the limiting suture at each end.

127. **Antiseptic Dressing.**—The surgical dressing here recommended and described by Sharpe consists in a mixture of gum camphor and crystallized carbolic acid which, when triturated together, form a liquid having a pleasant camphoraceous odor. It is practically a local anesthetic and is, he says, the best all around antiseptic and aseptic dressing he has ever used. It is soluble in olive oil and for the after-dressings he generally used it in solution from 1 to 3 or 6 of olive oil. He finds this very soothing for burns, stimulates healthy granulation and is also a good local application in eczema, tetter, erysipelas, etc. It evaporates in the air, but the oil in the solution prevents this to some extent. He finds it of great value in ear inflammations; in short, there are few conditions of wounds in which it does not make good dressing. He makes no claims to the discovery of the compound; it is closely allied to a well-known proprietary remedy. His claims for it are that it is easily made, easily carried and a very effective antiseptic and aseptic dressing. It is not merely a surface remedy, but penetrates into the diseased tissue. In conclusion, he remarks that as camphor and carbolic acid make such a non-toxic compound, the question arises whether the camphor would not be an antidote to carbolic acid poisoning. He has never used the preparation internally, but thinks it may be of value in some conditions as an internal antiseptic.

130. **Extra-Genital Chancres.**—The subject of innocent syphilis is discussed by Goltman, who notices some of the statements of authorities in regard to the matter and describes the principal avenues of infection. He thinks that the total abolition of syphilis would be impossible, but the innocent acquirement of the disease may be avoided without doubt and offers the following suggestions to this end: "1. Physicians should give their syphilitic patients explicit hygienic instructions, which would be better printed in booklet form. In my opinion a physician neglects a positive moral obligation if he fails in this. This, in my judgment, is the keynote of all prophylaxis, since all cases come under the physician's care sooner or later. 2. The habit of promiscuous kissing should be inveighed against—four of my five cases have been infected in this way—and much care should be exercised in the selection of servants, particularly nurses. 3. Barber-shops should be governed by proper legislation embracing a knowledge of the rudiments of the science of contagion, asepsis and antisepsis. 4. Physicians and dentists would do well to make examinations with more care and to perform minor and other operations with more deliberation. 5. The hygiene of industrial life should also be regulated. This would have a tendency to lessen other diseases besides syphilis, and could readily be done by disseminating the proper literature."

FOREIGN.

Titles marked with an asterisk (*) are abstracted below.

British Medical Journal (London), March 8.

1 Two Cases of Spinal Cord Disease Consequent on Syphilis. T. R. Bradshaw.
2 *Anatomy, Physiology and Pathology of the Imperfectly Descended Testis. W. McAdam Eccles.
3 *The Influence of Phosphorus on Organic Substances in Pills. W. Harrison Martindale.
4 *Puerperal Insanity. Robert Jones.
5 A Case of Tumor of the Cerebral Cortex. H. Cecil Barlow.

The Lancet (London), March 8.

6 *The Results of Operation in 60 Cases of Malignant Disease of the Breast. A. Marmaduke Sheild.
7 The Blood Vessels of Mammals in Relation to Those of Man. F. G. Parsons.
8 *A Contribution to the Study of Intestinal Sand, with Notes on a Case in Which It Was Passed. Dyce Duckworth and Archibald E. Garrod.
9 Some Experiments to Determine the Actual Efficacy of Izal Oil as an Intestinal Disinfectant. M. H. Gordon.
10 Two Cases of Lupus Vulgaris Successfully Treated with Urea Pura and the X-Rays. Edward Swales.
11 Abdominal Hysterectomy for Cancer of the Uterus. Robert O'Callaghan and Henri Dardenne.
12 *Electric Shocks. F. B. Aspinall.

The Practitioner (London), March.

13 *The Health of the People. James Cantlie.
14 Some Illustrations of Graves' Disease. G. A. Gibson.
15 Gout: Observations on Its Pathology, Forms, and Treatment. Arthur P. Luff.
16 *On the Etiology of Pulmonary Tuberculosis. F. W. Burton Fanning.

Journal of Tropical Medicine (London), March 1.

17 *Note on the Supposed Transmission of Plague by Fleas and Relapsing Fever by Bedbugs. George H. F. Nuttall.
18 Two Notes on Malarial Fever in China. W. G. K. Barnes.
19 Malarial Fever as Met with in the Great Lake Region of Central Africa. (Continued.) Albert Ruskin Cook.

Intercolonial Medical Journal of Australasia (Melbourne), January 20.

20 Hospital Management in Relation to the Medical Profession. W. Moore.

Bulletin de l'Academie de Med. (Paris), February 25.

21 *Chloroform in Heart Disease.—Continuation of discussion.
22 *Sodium Methylarsinate or Arrhenal. A. Gautier (Paris).—"Sur le methylarsinate de soude ou arrhénal."

Bulletin Medical de Quebec, February.

23 *Placenta Previa. S. V. Vézina.—"Quatre cas de placenta previa."
24 Pathognomonic Signs in Practice. S. V. Vézina.—"Des signes pathognomoniques dans la pratique."

Bulletin Soc. Med. des Hop. de Paris, February 13 to 27.

25 *Association of Pupil Disturbances with Lesions of the Aorta. H. Vaquez.—"Syndrome de Babinski."

26 *Investigation of Lead in the Viscera in Lead Poisoning. P. E. Launois and G. Meillère.—"Recherche du plomb dans les viscères des saturnins."
27 Stenosis of the Superior Vena Cava. P. E. Launois.—"Rétrécissement de la veine cave supérieure."
28 *Ascending Neuritis in the Etiology of Syringomyelia. G. Guillain.—"La névrite ascendante dans l'étiologie de la syringomyélie."
29 *Explanation of Syphilitic Cephalalgia by Lumbar Puncture. Milian.—"La céphalée syph. éclairée par la ponction lombaire."
30 Case of Hydrocephalus from Obliteration of Aqueduct of Sylvius. Touche.—"Hydrocéphalie interne."
31 Sclerosis of the Lung with Traction to the Left. A. Chauffard.—"Sclérose du lobe supérieur du poumon gauche. Traction vers la gauche des gros vaisseaux de la base du coeur."
32 Acute Meningitis Rapidly Cured by Antisyphilitic Treatment; Lymphocytes Numerous in Cerebrospinal Fluid; No Traces of Syphilis. F. Widal and Le Sourd.—"Méningite aigue. Guérison par le traitement antisyph. malgré l'absence d'antécédents et de stigmates syph."

Bulletin de la Soc. de Pharmacie de Bordeaux, January.

33 Test for Antimony Associated with Arsenic. G. Denigés (Bordeaux).—"Détermination quant. et qual. de traces d'antimoine en présence de fortes proportions d'arsenic."

Bulletin de la Soc. d'Electrotherapie (Paris), January.

34 Electric Treatment of Sexual Impotency. A. Laquerrière.—"Traitement d'impuissance sex. par les hautes intensités voltaïques."

Revue Gen. d'Ophthalmologie (Paris), January.

35 Unilateral Facial and Ocular Paralysis. A. Péchin.—"Paralysie faciale et paralysie des mouvements associés de latéralité des globes oculaires du même côté."

La Parole (Paris), February.

36 Instruction in Pronunciation by the Sight. L'Abbé Rousselot (Paris).—"Enseignement de la prononciation par la vue."
37 Intratympanic Surgery in Neuroses of Otitic Origin. G. Ferreri (Rome).—"La chirurgie intra-tympanique dans les névroses d'origine otique."
38 Study of Speech with an Artificial Larynx. L'Abbé Rousselot (Paris).—"La parole avec un larynx artificiel."

Presse Medicale (Paris), March 1.

39 *Radioscopic Examination of the Interlobar Pleuræ and the Diagnosis of Sclerosis. A. Béclère (Paris).—"L'examen radiosc. des pleures interlobaires et le diagnose de la sclérose de l'interlobe."

Progres Medical (Paris), March 1.

40 Melano-sarcoma of the Ciliary Body and Iris. E. Koenig (Paris).—"Melano-sarcome du corps ciliaire et de l'iris."
41 Sulphur Waters in Treatment of Syphilis. Ferras (Luchon).—"Traitement des syphilitiques aux Eaux Sulfureuses."
42 Nervous Children—The So-called Martyrs. Bourneville (Paris).—"Assistance des enfants nerveux: apropos des enfants martyrs."

Semaine Medicale (Paris), February 26.

43 Topography of the Lumbar Region with a View to Lumbar Puncture. E. Juvara (Jassy).—"Topographie de la région lombaire en vue de la ponction du canal rachidien."

Allg. Med. Central-Zeitg. (Berlin), March 1.

44 Keratomalacia. Schroen (Uettingen).—"Ein Fall von Keratomalacie."

Berliner Klin. Wochenschrift, February 17.

45 *Restoration of Defect in the Nostril. Fritz Koenig (Altona).—"Zur Deckung von Defecten der Nasenflügel."
46 Experiences in Surgery of the Biliary Passages. H. Scheuer (Berlin).—"Casuistisches zur Chir. der Gallenwege."
47 Restoration of Function by Implantation of Tendons. Reichardt (Magdeburg).—"Functionsherstellung durch Sehnenverpflanzung."
48 Surgical Removal of the Nail. Baumgärtner (Baden-Baden).—"Die chir. Entfernung des Nagels."
49 Experiences with Biliary Lithiasis in Medical Practice. G. Binder (Jena).—"Mitteilungen ueber die Gallensteinkrankheit aus der ärztlichen Praxis."
50 Fracture in the Upper Arm by Muscular Effort. Milbradt (Bernau).—"Eine Oberarmfraktur durch Muskelzug."

February 24.

51 Evacuation of the Sphenoidal Sinus for Nasal Polypi. A. A. G. Guye (Amsterdam).—"Vier Fälle von Ausräumung der Keilbeinhöhle bei recidivirenden Nasenpolypen."
52 "Landwehr's Rubber" in Diabetes Insipidus. K. von Alfthan (Helsingfors).—"Ueber das thierische Gummi Landwehr's bei Diabetes insipidus."
53 Rest and Exercise in Treatment of Phthisis. Naegelsbach (Schömberg-Neuenburg).—"Ruhe und Bewegung in der Phthiseotherapie."

Dermatologische Zeitschrift (Berlin), February.

54 *Brookes' Paste in Cutaneous Affections. Dreyer (Cologne).—"Die Verwendung der Brookes'chen Pasta bei infekt. und entz. Hautaffektionen."
55 Syphilis as a Legal Cause for Divorce. Heller.—"Ist die Syphilis des einen der Ehegatten ein Grund zur Trennung der Ehe?"

Deutsche Med. Wochenschrift, March 6.

56 *Cancer in the German Empire. Wutzdorff (Berlin).—"Ueber die Verbreitung der Krebskrankheiten im Deutschen Reiche."
57 Glycolysis. E. Bendix and A. Bickel (Göttingen).—"Kritischer Beitrag zur Lehre von der Glykolyse. II."
58 *Tonic Contraction of the Stomach. I. Boas. (Berlin).—"Ueber Magensteifung."
59 Cystic Tumor of Epiglottis; Function of Epiglottis. M. Senator (Frankfurt-am-Main.).—"Ein Fall von cyst. Tumor der Epiglottis. Funktion der Epiglottis beim Schluckakt."
60 *Paralysis of Organs of Sense After Pertussis. M. Rozsavolgyi (Budapest).—"Lähmung von Sinnesorganen nach Keuchhusten."
61 Modification of Jodko-Narkiewicz's Apparatus for Monodic Galvanization. L. Stembo.—"Ueber die monodischen Voltaströme."
62 Baccelli's Method of Treating Foot and Mouth Disease. H. Miessner (Berlin).—"Die Maul- und Klauen-seuche des Rindes und die Behandlung nach der Baccelli-schen Methode."

Wiener Klin. Rundschau, March 2.

63 Congenital Atresia of the Anterior Nares. J. Fein (Army Surgeon).—"Ein Fall von cong. vord. Atresie des Nasenloches."
64 *Modification of Biologic Blood Test. V. E. Mertens (Breslau).—"Die neuen biologischen Methoden des Menschenblutnachweises."

Wiener Klin. Wochenschrift, February 27.

65 *Fatal Hemorrhage After Tonsillotomy. N. Damianos (Vienna).—"Tödtliche Nachblutung nach Tonsillotomie. Bildung eines umschriebenen Gasabscesses nach subcutaner Gelatineinjection."
66 *Typhoid Bacilli in Sputa of Typhoid Patients. L. Jehle (Vienna).—"Ueber den Nachweis von Typhusbacillen im Sputum Typhuskranke."
67 Clinical Experience with Alboferin. K. Fuchs (Vienna).—"Klin. Erfahrungen ueber Alboferin."

Wiener Med. Wochenschrift, January 11 to 25.

68 *Bloodless Treatment of Muscular Torticollis. A. Lorenz.—"Unblutige Behandlung des muskulären Schiefhalses."
69 Alterations in the Nerve Centers from General Ethyl Chlorid Narcosis. R. Cantalupo.—"Ueber die durch die allg. Aethylchlorid Narkose verursachten feineren Veränderungen der nerv. Centren."
70 Psoriasis After Vaccination. E. Weinstein (Pribaj).—"Psoriasis nach Impfung."
71 Tremor from the Standpoint of Life Insurance. J. K. A. Wertheim (Amsterdam).—"Das Zittern vom Standpunkt der Lebensversicherung."

February 1, 8 and 15.

72 Chronic Ankylosing Inflammation of the Spine. L. Kedzior (Cracow).—"Zur chron. ankyl. Wirbelentzündung."
73 "Gland Fever" in Children. C. Hochsinger (Vienna).—"Das sog. Drüsenfieber der Kinder."
74 Vital Processes in the Human Epidermis. L. Merk (Graz).—"Ueber einige Lebensvorgänge in der menschl. Epidermis."
75 Ichthyol in Treatment of Venereal Catarrh. A. Kronfeld (Vienna).—"Zur Therapie des ven. Katarrhs."
76 New Method of Preserving Cadavers. A. Brosch (Vienna).—"Ein neues Leichen-Conservierungsverfahren."
77 *Kuhn's Peroral Intubation. Krug (Cassel).—"Die perorale Tubage nach Kuhn."

Gazzetta Degli Ospedali (Milan), February 13 to 23.

78 Mode of Action of Suprarenal Extract. I. Salvioli.—"Alcune ricerche intorno al modo di agire degli estratti acquosi di capsule soprarenali."
79 *Reaction to Tuberculin in Convalescents from Serofibrinous Pleuritis. D. Romani (Siena).—"La reazione alla tubercolina nei convalescenti di pleurite sierofibrinosa."
80 *Susceptibility of Insects to Tub. and Diphtheric Toxins. Centanni (Ferrara).—"Sensibilità degli insetti verso alcune tossine."
81 Cure of Intestinal Invagination by Spontaneous Evacuation of More Than a Yard of Small Intestine. E. Rebuschini.—"Un caso di invag. int. guarito mediante l'eliminazione spontanea di un lungo tratto d'intestino tenue."
82 Perforation of the Semilunar Valves. G. Vincenzo (Genoa).—Lo stato reticolare delle valvole sigmoidi."
83 Study of Coxa Vara. P. L. Fiorani (Venice).—"Contributo allo studio de la Coxa vara."
84 Therapeutic Efficacy of Tenifuges. A. Borini (Turin).—"I tenifughi e loro valore terapeutico."

St. Petersburg Med. Wochenschrift, February 9 to 22.

85 *Treatment of Oriental Sore with Finsen's Phototherapy. O. v. Petersen (St. Petersburg).—"Ein Fall von Orientbeule mit Finsen'scher Phototherapie behandelt."

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2. **Undescended Testis.**—In these lectures, which are concluded in this issue, Eccles goes over all the abnormal conditions of undescended testis, including accidents which may occur from this cause and the effects on the development of the individual. He also considers morbid growths and teratomata; the latter he thinks may be an attempt on the part of Nature to produce a descendant from germinal epithelium that has remained from the primary genital mass, but undifferentiated, and this abortive development being without the help of the union of cells of the two sexes, results in the formation of the heterogeneous mass of sebaceous matter, teeth, ossifying cartilage, bone, hairs, etc. He has been unable to trace a record of true dermoid cyst of an imperfectly descended testis in the human subject, but there are several reported in animals. It is conceivable that the

testis, especially the imperfectly descended one, may contain the same or similar cells to those which the ovary does, and from which this curious growth takes its origin. The various forms of hernia connected with these conditions are also discussed.

3. **Phosphorus.**—On the suggestion of Sir William R. Gowers, Martindale has investigated the effect of phosphorus on alkaloids and other substances in pills, and finds that in most instances, in substances which were employed—strychnin, morphin, quinin sulphate, nitroglycerin and zinc valerianate in combination—there is no interaction or decomposition of substances associated with phosphorus. In zinc valerianate there was evidence of combination, but he is inclined to believe it has taken place in the process of extraction.

4. **Puerperal Insanity.**—Jones' paper discusses the statistics as regards this condition in some 3500 female patients, in whom he finds insanity connected with pregnancy, the puerperal state or lactation, in 259 cases, or 7.4 per cent. of the whole. Of this 259, 21.62 per cent. were cases of insanity during pregnancy; 46.33 per cent. occurred during the puerperal period, and 32.43 per cent. were associated with lactation. He is not inclined to think that there is any special type associated with either pregnancy or lactation, but the puerperal cases present such a marked delirium with wildness and delusions of a hallucinatory character in which religious and erotic features are so prominent that he recognizes it as an almost distinct nosologic entity. The statistics are carefully made and tabulated—the relation with illegitimacy, the form of insanity, the rapidity of onset, etc. The suicidal impulses were commonest in lactation cases and rarest in the puerperal ones. Most of the cases had undergone severe bodily strain, having had the care, responsibility, and management of homes under peculiar difficulties. Hallucinations of hearing were about six times as frequent as any other form, and he finds that marked sexual excitement was more frequently met with in this form of insanity than any other. The larger proportion, 73 per cent., of the puerperal cases consisted of first attacks. The onset of the insanity was apt to be sudden. Heredity occurred in nearly 50 per cent., and fully that percentage in the puerperal cases, while in the pregnant cases it occurred in 82 per cent. Of insanity among pregnant women a large proportion, 26 per cent., occurred among unmarried women, while these were rare as cases of insanity of lactation. In the strictly puerperal period, 12 per cent. occurred in single women. He thinks that during pregnancy the disgrace of illegitimacy exerts a great influence on the production of the condition.

6. **Mammary Cancer.**—Sheild claims the origin of the thorough operation for malignant disease of the breast for Eugland, though he admits that Halsted has the credit of foreing it upon the attention of the profession. The effect of removal of the ovaries for malignant cancer is considered by him as unsettled and as yet in its experimental stage. He would consider three years as rather a short period to calculate a cure. In 60 cases operated on the operation was most thorough; all but two included removal of the axillary lymphatic tissue and every scrap of fascia. Where the axillary glands were infected also a part of the pectoral was removed. The skin has always been freely removed, so that in some cases he was not able to co-apt it again after operation. The most striking general feature of his cases was the lack of local recurrences; if they did occur they would be only small or of a nodulous nature and easily removed. In 40 tabulated cases, 8 patients were well for five years, going on six, 4 for four years and upward, 7 for three years and upward and 11 for two years. In the cases that showed local return within two years a second and slight operation has given them a fresh period of freedom from the disease. In conclusion he says the following lessons seem to be inculcated from the faithful record of these 60 cases: "1. That the risk of removing cancer of the mammæ by extensive operation is small and should not amount to more than 1 or 2 per cent. Sepsis is preventable, and when it occurs it is a blameworthy error on the part of the surgeon. 2. That early and free removal gives prospect of years of freedom and in a good percentage of cases of good health and enjoyment of life. 3. That the cases which do badly are (1) soft, rapidly growing cancer in young and vascular women, and (2) cancers of long continuance before operation where the skin and cervical glands are widely infected. 4. That in certain cases visceral cancers and cancers in the liver co-exist with or rapidly follow operation, and the explanation of these is uncertain. 5. That the practice of early exploration by incision of small nodules and indurations in the breast is of the first importance and should be strongly urged upon the profession generally, especially upon those in general practice who so often see these cases in their early beginnings and on whom the great responsibility of prompt diagnosis falls. 6. No one should undertake an operation for mammary cancer unless he is capable, and has had sufficient operative experience, to remove thoroughly all lymphoid tissues from the axilla, the leaving of infected glands towards the apices of the axillary spaces being a common source of failure in the results of this operation. 7. The prognosis of mammary cancer is still dubious and sometimes instances arise which falsify ordinary experience. Bad cases have long freedom from return. Early cases show recurrence. But such do not invalidate the rule: Operate early, operate extensively."

8. **Intestinal Sand.**—This subject has apparently received little attention from the English-speaking profession, though considerable has been written on it by Continental writers. Duckworth and Garrod report cases, with examination of the material, including spectroscopic examination. They classify the varieties of intestinal sand into two groups: 1. False intestinal sand composed of vegetable remains that resist the action of digestive fluids and may or may not have acquired some incrustation of earthy salts. 2. True intestinal sand, which has no special vegetable basis, and owes its hardness and grittiness to inorganic material which it contains. The organic basis of this is of animal origin and the authors are inclined to think it originates in the intestines, chemical and clinical evidence both alike pointing in this direction. The nature of the pigments suggests the colon as the most likely seat for the formation and the anatomic structure of the large bowel may be looked upon as more favorable than that of the small intestine to the sojourn required for the deposition of the earthy salts of which the material is so largely composed.

12. **Electric Shocks.**—This paper, read before the Institute of Electrical Engineers by a layman, contains many interesting points. He discusses the following questions: 1. Is everyone equally susceptible to an electric shock? He holds there is no absolute proof as to this. His own opinion is that not only different people are differently affected, but the same persons under different conditions do not feel the same effects. 2. Is a person suffering from disease more likely to be fatally injured by an electric shock than a person in good health? He finds that apparently a low grade of intellect seems to favor insensibility to electricity. The brain does not so quickly react. He has also observed persons suffering from kidney disease to be specially sensitive. This seems to indicate that the resistance of the body may be altered by disease. As regards the question, whether the physiologic condition at the time shock is received make any difference, he quotes cases that seem to show that free perspiration seemed to shunt off the electricity, making the matter much less serious than would otherwise be the case. Also, drunken people seem to be less likely to fatal accidents, though the evidence is not very strong; similarly, people that are asleep. He arranged once for his assistant to give him a shock when he was in bed asleep, and though two witnesses guaranteed the assistant had done so, he felt nothing. In one case a man who was stationed to watch a cable carrying 5000 volts, went to sleep and fell upon it. He was most severely burned, but was not killed. Aspinall seems to think that the passage which the current takes through the body has an effect as regards fatality, and that the left side is more vulnerable than the right, and gives evidences. He believes the reason is that the valves of the heart on that side

are more easily damaged. The amount of contact and the effect of burning as having an influence on the fatality of the shock, is discussed. He thinks that a person could probably kill himself with a smaller voltage with large contact. Burns, he thinks, may have a good effect, increasing the resistance. In most of the cases he noticed the fatal effects were where the burns were slight. His opinion is that moistness of the skin reduces the chance of burning, as it insures better contact; if no burning takes place efforts to help the victim should be redoubled, when it is thought he has received a shock, though severe burning may occur after a sufficient current to kill has been received. He is also inclined to think that the fatal shock may not destroy consciousness and the person be able to speak before he succumbs; he reports a case indicating this. The peculiar cry which usually attends the severe electric shock is not absolutely invariable, as in one instance he did not observe it. As regards the effect of the alternating and direct currents he is rather inclined to think the direct current possibly a little more fatal. It will much more quickly break down any fault in conduction than the alternating current, but if otherwise the conditions are the same both currents will kill a man equally well. If death occurs from an electric shock both are equally dangerous; if death occurs from burns, the direct current is worse; while burns themselves are protections in his opinion, they may yet be severe enough to cause death. As regards the actual voltage required to cause death he would say that "at below 600 volts the conditions must be abnormally favorable; at below 1000 volts they must be favorable; and at above 1000 volts, the higher the pressure the more easy it is to get the conditions necessary to cause death." On the whole there is really not much more danger in one system than another; it is purely a question of voltage. He asks if medical men can not give us more certain methods of ascertaining whether a man is dead or not from an electric shock; the lack of this is unfortunate, and he inquires if anything more can be done to help people that have received shocks. He wants to know what it is that breaks down when the shock is received. Is it the lungs, the heart, the blood, or the brain? Electricity, in his opinion, acts somewhat as an anesthetic like chloroform, and he has seen two cases where death was expected, but where the men recovered from the head being lowered, thus flushing the brain with the blood as is done in cases of chloroform asphyxia. He asks: Should we adopt the same treatment before applying artificial respiration, namely, hold the body a few seconds head downward?

13. **The Health of the People.**—Cantlie discusses the sanitary condition of the British population, showing how the race is degenerating, under conditions of town life, with its bad air, lack of exercise, etc., its bad effect on children and young adults, and the diminished effect of the church in cities as compared with country. He discusses the physique of boys and girls. While he admits that the girls of the middle classes are improving, this is not true of the masses, and it is not even true of the boys of the middle class. The present system of dress and bringing up is damaging in the case of boys. He is inclined to conditionally endorse Kipling's criticism of English games. He believes they are carried over to adult age to an unreasonable extent. The remedies which he sees for the degenerative influences on young men are compulsory military service, which he believes would have a generally beneficial effect, and improving the condition of agricultural labor, thus making country life more attractive.

16. **The Etiology of Pulmonary Tuberculosis.**—Burton Fanning holds that consumption is communicated to individuals at different periods long before it has an outbreak, yet it forms a lodgment, lies latent in the system to be later aroused and developed. He thinks at least 40 or 50 per cent. of people carry in them germs of this disorder, which may break out, and that a large class of people, who are considered naturally delicate but free from organic disease, are really suffering from masked tuberculosis. He attributes considerable importance to heredity. In 54 per cent. of his own cases there is a family history of pulmonary tuberculosis. There are a number of conditions which tend to bring out this disorder, among them being influenza, malaria, dysentery and measles. A strikingly large number of his consumptive patients have been martyrs to migraine. A man with a tubercular focus ought not to take any liberties with his health or overstrain himself. In 10 per cent. of his cases the author attributes the occurrence of manifest tuberculosis to overfatigue, overindulgence in athletics, dancing, climbing and games. He does not touch upon the subject of overcrowding, close confinement or bad air, which are specially active in producing tuberculosis of the poor.

17. **Plague.**—Nuttall notices Galli-Valerio's article (in a previous abstract) in regard to the transmission of plague by fleas and refers to his own experiments as having the same bearing. He finds that the bacilli are largely digested by insects and therefore not likely to do so much harm, at least if transmission does not occur immediately. He has experimented not only with fleas but with flies and bedbugs and would suggest that experiments be tried on a suitable species of monkey. Bedbugs are easy insects to work with. They can be kept without food or water for several months and in this condition will bite immediately.

21. **Chloroform in Heart Disease.**—Guyon remarked that he had frequently had occasion to operate on subjects between 60 and 90 years of age, and once on a man of 91. Atheromatosis and heart affections are not rare at these ages, but the chloroform was perfectly tolerated. He even noted in a number of cases that the heart action seemed to have been permanently benefited, confirming Hare's experience. He has lost two patients under operation and in both the heart was in fatty degeneration, hence he warns against this condition, but affirms on the other hand, that chloroform can be administered to patients even when they are known to have exhibited symptoms of atheroma or angina pectoris. He thinks it is possible to avert syncope, even in extreme anemia, by the Trendelenburg position. He has had no fatalities since this was introduced. The pulse must be watched as carefully as the respiration, especially during the third stage of chloroform. Brouardel stated that he had served as medical expert in twenty-five cases of sudden death under chloroform. One was a child with an enlarged thymus and one a woman who succumbed to pulmonary embolism after reduction of a fracture of the femur. None had any evidences of a valvular defect, but in three the heart was loaded with fat, although the cardiac muscle was not altered. In one patient the heart was in actual fatty degeneration, but the patient died in reality from congestion of the lungs. The subjects were between 13 and 52 years of age, the 9 men all under 47. In 14 cases the operation had not commenced; in 3 it had just commenced, and in the case of fatty degeneration mentioned above, death occurred after a luxation of the femur had been reduced, a minute or two after cessation of the chloroform. Death was attributed by the surgeons in all these cases, except one, to a cardio-pulmonary syncope. Renal lesions were frequent in the various subjects. In one woman the kidney was enormous on one side and a mere calcareous lump, weighing 6 gm., on the other. He does not incriminate these renal lesions in the causation of the chloroform fatality. From the medico-legal standpoint, the latter can be compared only to the sudden deaths which occur from blows in the region of the larynx, sometimes very slight injuries. Brown-Séquard described these fatalities as "inhibition phenomena," irritation of the laryngeal region entailing abrupt arrest of respiration and circulation. In addition to traumatisms of this kind, so trifling that they leave no trace on the cadaver, the same accidents have been observed from mere excitation of the nasal, pharyngeal and laryngeal mucosa. He cited a case of sudden death during sneezing, and 2 cases during a mild catarrhal sore throat with no trace of edema. Both were young men, one a medical student. Any lively excitation of the superior laryngeal nerves, the terminal ramifications of the trigeminal, is liable therefore to induce the cardio-pulmonary syncope or death from inhibition. Sudden death just before or during a surgical operation was known before the discovery of chloroform. He quoted examples of such occurrences reported by Lisfranc, Desault, Simpson and others. The

use of anesthetics did not create a new kind of death from stoppage of heart and lung action. The danger is not exclusively in the administration of the anesthetic agent; it lies also in the innate or acquired susceptibility of the patient. The chloroform causes the explosion of this hitherto latent disposition. He does not believe that it is possible to detect this susceptibility beforehand as a general rule, but occasionally the antecedents may afford a hint. An emotion or excitement which would not affect a healthy person, assumes intense proportions in debilitated, cachectic subjects. The regions innervated by the terminal branches of the trigeminal, by the superior and inferior laryngeal nerves, are especially liable to induce this arrest of the respiration and circulation under the influence of sometimes merely slight stimuli or impressions. Anesthetics which act by penetration of their fumes into the pharynx and larynx, across these nerves, have a direct stimulating action on these peculiarly excitable regions and may arouse a heretofore unsuspected susceptibility. The mode of administration of anesthetics is therefore not the only factor to be invoked in case of an accident. The personality of the subject, his special susceptibility, are frequently the principal causes of death.

22. **Sodium Methylarsinate.**—Gautier's success with cacodylic medication inspired him to seek for a still more effective means of administering arsenic. He finds that the sodium methylarsinate (methylarsinate disodique), or arrhenal, is even more effective than the cacodylates, while it has the advantage that it can be administered by the mouth without by-effects, even from prolonged use, with intermissions every four or five days. It increases the appetite, restores the strength, raises the arterial tension and causes a marked increase in the number of red corpuscles and of the large mononuclear cells. He reports in this communication the results of its administration by himself and his colleagues in tuberculosis, chorea, uncontrollable vomiting, pernicious anemia, malaria and cutaneous affections. The average dose is 10 cg. a day. The name arrhenal is derived from the Greek term for arsenic.

23. **Placenta Previa.**—Vézina describes four cases of placenta previa and recommends his practice of first administering half a dram of fluid extract of ergot in such cases. Then, when dilatation is sufficient he practices version if necessary and extracts the fetus. He gives no anesthetic and relies exclusively on the ergot and tamponing, which supplement each other. The patients all recovered, with the death of one fetus.

25. **Association of Pupil Disturbances with Lesions of the Aorta.**—The pupil disturbances observed in case of a lesion of the aorta are attributed by Babinski not to a mechanical cause but to the action of the same poison in the system that is inducing the aortic affection. Vaquez reports three cases which confirm this view and demonstrate its importance in pathology. In one of his cases, the aortic valvular lesions and the loss of the pupil reflexes were the only signs of syphilitic infection. Their coincidence should always suggest the possibility of syphilis, and the pupils should always be examined in case of aortic lesions.

26. **Lead in the Viscera in Lead Poisoning.**—Launois has a special apparatus for reduction and electrolysis of the tissues to be examined. He found deposits of lead in the brain in 8 out of 10 cadavers examined, and only once in the spleen or lung.

28. **Ascending Neuritis in the Etiology of Syringomyelia.**—Guillain describes the case of a man of 50 who developed a large phlegmon in the palm consecutive to a trifling injury. As the phlegmon healed symptoms of ascending neuritis from the injured point became apparent and gradually progressed into pronounced syringomyelia, of which the patient is now a typical example, twenty years after his primary phlegmon. Marie, Eulenburg and Schlesinger have each described a similar case consecutive to a phlegmon on the hand or in the axilla. The infection evidently reached the spine by way of the nerves, which may also occur in case of tetanus and hydrophobia. It is possible that certain suppurations noted in the course of syringomyelia may be primary instead of a casual coincidence or secondary. Certain puzzling affections of the spinal cord, medulla and pons may be due to infectious or toxic agents arriving from the periphery by way of the nerves.

29. **Relief of Syphilitic Cephalalgia by Lumbar Puncture.**—This communication from Fournier's service describes the great benefit derived in several cases of syphilitic cephalalgia by lumbar puncture and withdrawal of a small amount of fluid. The results seem to indicate that the cephalalgia is in reality a meningitic symptom revealing hypertension of cerebrospinal fluid.

39. **Radioscopic Diagnosis of Sclerosis of the Interlobar Pleura.**—Béclère asserts that it is possible to diagnose the condition of the interlobar pleura by radioscopy. The latter is not complete until the thorax has been inspected from the front, from the back, from the side and obliquely, with the tube held in each of these positions at various heights from the top of the head to the inferior strait of the pelvis. He points out that a sheet of cardboard is permeable for the rays when inspected from the front or back, but that it casts a dense shadow when the edge alone is presented to the tube and the rays have to pass through its entire length. In the same way, the pleural partition that separates the upper lobe of the lung from the middle and lower lobes, casts no shadow unless the rays pass through its entire length and not even then unless in case of fibrous thickening, which is possible to be diagnosed with certainty.

45. **Restoration of Defect in Nostril.**—Koenig successfully substituted a missing portion of the nostril by a corresponding piece of tissue cut out of the upper portion of the ear. The patient was a girl and the defect in the ear could be easily concealed by the hair. It is seldom that the surgeon is able to supply a defect with such a perfect substitute as the flap in this case, almost identical in structure on both sides, and with the free edge apparently continuous with the edge of the intact nostril. In case the flap should show signs of necrosis, he has the other ear for another attempt.

54. **Brookes' Paste in Inflammatory and Infectious Cutaneous Affections.**—Dreyer attributes the great efficacy of this paste to the combination of the three important disinfectants, salicylic acid, ichthyol and mercury in the very soluble form of the oleate. The formula is as follows: Hydrargyr. oleinic. (5 per cent.), 28; zinc oxid and amyli, āā 7; vaselin alb., 14; ichthyol, 1 to 2; acid. salicyl., 1.2 to 1.8, and ol. lavand. qu. sat. He describes his experiences with it and mentions among other instances of its efficacy a case of gummatous ulceration of the ear which had persisted for several years, notwithstanding inunction treatment. It healed in two weeks under the paste and injections of mercury salicylate. The paste must be smeared over the spot and covered with cotton. It is not effective when applied on a rag. Inflamed hemorrhoids, sycosis, eczematous erosions, soft chancres, etc., afforded equally favorable results.

56. **Cancer in the German Empire.**—Wutzdorff gives numerous tables and charts showing the distribution of cancer in the different parts of the empire as compiled by the imperial council of health. They show that the number of cases of cancer has materially increased since 1892, the proportion of increase surpassing that of the population. The age of the subjects averages younger than in former years. Women are more frequently affected than men, but do not succumb to the cancer in as large a proportion. Cancer is most prevalent in the Lübeck and Hamburg districts and is increasing most rapidly in the latter and in Wurtemberg. The southern provinces of the empire are the least affected.

58. **Tonic Contraction of the Stomach.**—Boas describes a contraction of the anterior stomach wall similar to the phenomenon called "stiffening of the intestines" by Nothnagel (Darmsteifung). It is the early phase of Kussmaul's "peristaltic restlessness of the stomach." Boas has been studying this "stiffening of the stomach" for several years, and states that it is a comparatively frequent and in certain instances an extremely important diagnostic sign. It may be slight, restricted

to a small portion of the fundus, and palpable as merely exaggerated tonicity of the gastric musculature, subsiding after a a few seconds. These abortive contractions do not seem to be felt by the patient and are not associated with any perceptible noise. The contractions may occur more distinctly, and be palpated as a marked increase in the tonus, visible as a protuberance of a larger or smaller portion of the wall of the stomach, and terminating in a perceptible gurgle as the contents are forcibly expelled. These contractions are slightly painful. In other cases the contractions may be very vigorous, lifting up portions of the stomach above the level of the abdomen and lasting some time, terminating with a loud gurgling noise and causing more or less decided pain. In 5 cases of spasmodic contraction of the pylorus this stiffening of the stomach was a prominent symptom. It was also pronounced in cases of organic stenosis of the pylorus on a cicatricial or carcinomatous basis. He relates several case-reports as typical specimens of the phenomenon and proclaims that it can be accepted as the precursor of visible and palpable gastric tetany from impermeability of the pylorus. It is the first sign of some interference with the permeability of the pylorus, while it can still be overcome. When the obstacle becomes unsurmountable, the hitherto regular although exaggerated tonus becomes irregular and spasmodic. The tonus becomes tetany. The obstacle to the permeability of the pylorus may be purely functional or organic, either cicatricial or due to a neoplasm in or near the pylorus or to displacement. The stiffening is valuable as a differentiating measure against atony of the stomach and gastric myasthenia. It establishes the existence of some obstacle at the pylorus in cases in which all the symptoms indicate atony. When the diet is regulated and the stomach duly rinsed, it is almost impossible to detect this sign except when the stomach is full, at the height of digestion, that is, three or four hours after dinner. Rubbing the fundus with the hand dipped in cold water or after ether has been applied or after Faradization, are useful adjuvant factors in its production. The diagnosis is much facilitated by this sign of incipient stenosis of the pylorus. As internal treatment is rarely successful in such cases, it will stimulate the patient to accept surgical intervention at a time when otherwise the symptoms do not positively indicate it. Boas does not advocate operating for mere spastic stenosis of the pylorus, as internal treatment is preferable for the majority of such cases, along the lines of internal treatment of the so-called mechanical insufficiency of the first degree.

60. **Paralysis of the Organs of Sense After Pertussis.**—The child in the case described became blind, deaf and dumb in the course of a severe attack of whooping cough. The behavior of the pupil reflex in this and a case described by Alexander indicated that the disturbances were due to pathologic alteration of the nerve centers, probably from edema of the brain. There was no albuminuria. One of the three cases on record died, both of the others recovered.

64. **Modification of Biologic Blood Test.**—Mertens points out that the rabbits are injected in the peritoneum by the Hungarian, Uhlenhuth, and subcutaneously by the Germans, Wassermann and Schütze, to obtain prepared serum for the biologic serum differentiating test of blood. Experience has confirmed the great value and reliability of the test, but he finds that it can be simplified by making the injections into the veins of the animals. The serum thus prepared has proved 150 times as powerful in some of his experiments, while the diagnosis is possible in one hour instead of in twenty-four by the peritoneal method. The intravenous method is also preferable for the reason that bacteria in the fluid injected soon die in the animals' blood. The rabbits also tolerate intravenous injections much better and they can thus be repeated oftener. He mentions with approval Ziemke's method of extracting the blood stains with a concentrated solution of potassium cyanid. The extract is then shaken up with a few scraps of tartaric acid and tested constantly with red and blue litmus paper until a neutral reaction is almost reached. The resulting fluid is limpid when still slightly alkaline, but remains turbid as long as there is a trace of acid in excess. It is then diluted with water to a laky tint and is then ready for the serum test. A scrap from the stomach of a cadaver that had been buried ten years reacted positively to the test thus modified.

65. **Fatal Hemorrhage After Tonsillotomy.**—Damianos states that about 150 cases of severe hemorrhage after tonsillotomy are on record, only seven of which proved fatal. He had occasion recently to observe another fatal case, distinguished further by the formation of a gas abscess after a subcutaneous injection of gelatin. The patient was a young man with a tendency to hemophilia. When the tonsil was removed the incision passed through the plane of the outer capsule of the tonsil where the trunks of the tonsillar arteries pass before ramifying. The side wall of one of these arteries had been injured by the operation, and its intimate connection with the fibrous capsule impeded its contraction and retraction, thus interfering with hemostasis. He therefore warns against the complete ablation of the tonsil. It is entirely unnecessary to remove all of it, while the case described shows the dangers of such a procedure. In the partial removal of the tonsil only small ramifications of the tonsillar arteries can be injured, and the yielding structure of the remaining portion of the tonsil left allows of contraction and retraction. The hemorrhages followed the use of the knife, of the tonsillotome and even of the thermocautery. In some of the cases it occurred at once and in others appeared or recurred several days later. The hemorrhage ceased in a few cases as the patient fainted, and in others the fainting was artificially induced as a last resort by raising the patient to a sitting posture, with the same success. Hood noticed that the hemorrhage ceased as the patient vomited in one case, and he arrested the hemorrhage in another patient by administering an emetic. Others were successful in arresting the hemorrhage by applying an astringent. Hovell uses a paste of one part gallic and three parts tannic acid mixed with a little water and rubbed with the finger into the bleeding spot. Several report arrest of the hemorrhage under ergotin, others after cauterizing with the thermocautery. Panas advocates digital compression as the most effective measure, kept up possibly as long as two hours. The bleeding artery has been twisted or ligated in some cases and the carotid artery has been compressed or ligated in others. The last resort seems to be ligature of the external carotid or of the common carotid artery. About six cases have been treated by the latter method. Three of the seven fatal cases were after operations by charlatans. Another was a rebellious child whose screaming detached the thrombus which had arrested the bleeding at first. Another patient was a girl of 13 who made a sudden movement to stand up and retch during the operation on the second tonsil. The first had been successfully removed. The knife slipped and severed a small artery and vein in an incision .5 cm. deep beyond the tonsil. The death was ascribed to penetration of blood into the air passages, but the operator, Schuchardt, held to the opinion that the circumstances of the case justified the assumption of shock, as the patient fainted and died after gasping twice.

66. **Typhoid Bacilli in the Sputa in Typhoid Fever.**—Jehle examined the sputum from 23 cases of typhoid fever and cultures were made from the bronchial secretions in 15 cases that came to the autopsy. He found that the sputum had a marked hemorrhagic character in the cases complicated by pneumonic infiltration, and that it frequently contained typhoid bacilli alone or associated with other microbes, especially the influenza bacillus. He also succeeded in determining the presence of typhoid bacilli in the sputum in the cases of clinically and anatomically uncomplicated bronchitis. The importance of this last fact is apparent for the prophylaxis of typhoid fever. One of the cadavers displayed a recent hemorrhagic pneumonia while the typhoid lesions in the intestines had evidently been long healed. Typhoid bacilli were numerous in the sputa. In another, a fatal suppurative cholangitis had developed after two months of undisturbed convalescence from typhoid fever; pure cultures of typhoid bacilli were derived not only from the biliary abscess but from the lung juice in this case; also from

4 out of 5 cases of pronounced pneumonia and in 2 out of 6 cases of uncomplicated bronchitis in typhoid fever. The findings in one cadaver suggested that the typhoid hemorrhagic lobular pneumonia and pleuritis were the primary affections, as no lesions were discoverable in the intestines. The mesenteric glands, however, and the intestinal mucosa contained the bacilli in large numbers.

68. **Bloodless Treatment of Muscular Torticollis in Children.**—Lorenz describes the fine results attained by subcutaneous intentional rupture of the sterno-cleido-mastoid muscle to cure obstinate wry-neck in children. The subject lies with a hard cushion under the shoulders, the head and neck unsupported. The shoulder is drawn down at the same time and it is thus possible to tear the muscle by gradual dehiscence, followed by over-correction. Parents accept this operation much more readily than when the knife is used, and the dehiscent fibers heal under the intact skin with little if any cicatricial formation. The cure has been ideal and permanent in all his cases.

77. **Per-Oral Intubation.**—Krug reports twenty-two cases in which Kuhn's per-oral tube was applied, with success surpassing all anticipations. See THE JOURNAL of January 25, p. 284.

79. **Reaction to Tuberculin in Convalescents from Pleurisy.**—The tuberculin test proved positive in fourteen convalescents from serofibrinous pleurisy free from any clinical signs of tuberculosis. Romani thinks that the reaction must have been due to some small latent focus escaping all our means of research except the tuberculin test. He ascribes the pleurisy in such cases to infection from these latent foci. The germs pass by way of the lymph to the pleura and there set up inflammation that may remain limited to the pleura and not involve the primary focus, which remains latent. Every pleurisy which can not be traced to some other known process may be assumed to be secondary to a tubercular focus whether it is apparent or not.

80. **Susceptibility of Insects to Tuberculous and Diphtheric Toxins.**—Centanni noticed that the larvæ of house flies usually refused to feed on the flesh of animals that had been used for laboratory research, or if they did feed on it, they soon died. He therefore instituted experiments which proved that maggots and similar insects offer most interesting and demonstrative material for research on the action of bacteria and their toxins. He found, for instance, that the tubercle bacilli ingested by the maggots did not penetrate into the tissues, but evidently killed the insects by their toxins. If only a small quantity of bacteria were ingested, they were eliminated *en masse* without apparent injury to the maggot. After ingestion of a small amount of diphtheria bacilli on the other hand, the epithelium of the intestines shows specific alterations, but it seems to acquire a kind of immunity, as there is no further absorption and the bacteria and their toxins can remain in large quantities in the intestines without harm to the insect until their final expulsion. The simplicity of the construction and of the vital processes in insects renders them peculiarly instructive for such research.

85. **Treatment of Oriental Sore with Finsen's Phototherapy.**—Petersen remarks that an oriental sore is easily diagnosed when it is encountered in the places where it is endemic, but may prove puzzling when first observed at St. Petersburg for example. He has recently had two such cases. One was at first assumed to be a gummatous ulcer as the patient's statement that she had recently arrived from the Orient was unheeded. It healed in the course of four months under curetting and iodin. The second patient was an actress from Turkestan, and the ulcer involved the nose and part of the cheek. Under Finsen's phototherapy the lesion healed with the minimum of scar formation. The effect in this case was so striking and the treatment seems so rational in these evidently parasitic lesions, that Petersen and Finsen, with whom he corresponded on the subject, now recommend phototherapy as eminently adapted for the treatment of endemic oriental sores. The sun's rays can be utilized in the tropics without the expensive electric light apparatus.

Books Received.

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

DISEASES OF THE INTESTINES. Their Special Pathology, Diagnosis, and Treatment. With Sections on Anatomy and Physiology, Microscopic and Chemic Examination of the Intestinal Contents, Secretions, Feces and Urine; Intestinal Bacteria and Parasites; Surgery of the Intestines; Dietetics; Diseases of the Rectum, etc. By John C. Hemmeter, M.D., Ph.D., Professor in the Medical Department of the University of Maryland. In Two Volumes. Vol. II: Appendicitis, Tuberculosis, Syphilis, Actinomycosis of Intestine, Occlusions, Contusions, Rupture, Enterorrhagia, Intestinal Surgery, Atrophy, Abnormalities of Form and Position, Thrombosis, Embolism, Amyloidosis, Neuroses of the Intestines, Intestinal Parasites, Diseases of Rectum. With Plates and Many Other Illustrations. Octavo, 675 Pages. Price, Vol. II, net, $5.00. Philadelphia: P. Blakiston's Son & Co. 1902.

PHOTOGRAPHIC ATLAS OF THE DISEASES OF THE SKIN. A Series of Eighty Plates, Comprising More Than 100 Illustrations, with Descriptive Text, and a Treatise on Cutaneous Therapeutics. By George Henry Fox, A.M., M.D., Clinical Professor of Diseases of the Skin, College of Physicians and Surgeons, New York. Price, $1.50 each. Part IX. Paper. Philadelphia and London: J. B. Lippincott Co. 1901.

DISEASES OF WOMEN: A Manual of Gynecology Designed Especially for the Use of Students and General Practitioners. By F. H. Davenport, A.B., M.D., Assistant Professor in Gynecology, Harvard Medical School. Fourth Edition, Revised and Enlarged, with 154 Illustrations. Cloth. Pp. 402. Price, $1.75. Philadelphia and New York: Lea Brothers & Co. 1902.

OBSCURE DISEASES OF THE URETHRA. By E. Hurry Fenwick, F.R.C.S. Eng., Surgeon to the London Hospital. With Special Chapters on Urethral Carcinoma and Calculus, by J. W. Thomson Walker, M.B. Edin., F.R.C.S. Eng. Cloth. Pp. 154. Price, $2.60 net. Philadelphia: P. Blakiston's Son & Co. 1902.

COMPEND OF GENERAL PATHOLOGY. By Alfred Edward Thayer, M.D., Assistant Instructor in Gross Pathology, Cornell Medical College. Containing 78 Illustrations, Several of Which Are in Colors. Cloth. Pp. 321. Price, $0.80. Philadelphia: P. Blakiston's Son & Co. 1902.

PROCEEDINGS OF THE AMERICAN PHARMACEUTICAL ASSOCIATION at the 49th Annual Meeting, Held at St. Louis, Mo., September, 1901, also the Constitution, By-laws and Roll of Members. Cloth. Pp. 1028. Baltimore: Published by the American Pharmaceutical Association. 1901.

REPORT OF THE VITAL STATISTICS OF THE CITY OF HAVANA, Made to Brigadier General Leonard Wood, U. S. A., Military Governor. Year, 1901. By Major W. C. Gorgas, Surgeon, U. S. A., Chief Sanitary Officer. Paper. Havana: Avisador Commercial Printing Office.

PSYCHOLOGY, Normal and Morbid. By Charles A. Mercier, M.B., M.R.C.P., F.R.C.S., Lecturer on Insanity at the Westminster Hospital Medical School. Cloth. Pp. 518. Price, $5.00. London: The Macmillan Co. 1901.

SIXTEENTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH AND VITAL STATISTICS of the Commonwealth of Pennsylvania. Vols. I and II. Paper. Pp. 1114. State Printer of Pennsylvania: Wm. Stanley Ray. 1901.

HUMAN EMBRYOLOGY AND MORPHOLOGY. By Arthur Keith, M.D. (Aberd.), F.R.C.S. (Eng.), Lecturer on Anatomy, London Hospital Medical College. Illustrated. Pp. 324. Price, $4.50. London: Edward Arnold. 1902. New York: Longmans, Green & Co., Agts.

New Patents.

Patents of Interest to Physicians, etc., March 4 and 11:

694,599. Hernial truss. Robert Arnhold, Cleveland, Ohio.
694,630. Nebulizer. Herman Goltermann, New York City.
694,541. Vaginal syringe. Arthur R. Gordon, Toledo, Ohio.
694,751. Hernial truss. Datus E. Huffman, Minneapolis, Minn.
694,762. Protector-pad for corns. Samuel A. Level, Hot Springs, Ark.
694,666. Pump for atomizers. John Robertson, Cincinnati, Ohio.
694,813. Hypodermic syringe. Benjamin T. Winchester, Baltimore, Md.
695,270. Vaccine shield. George M. Beringer, Camden, N. J.
694,945. Manufacture of iodin preparations. Max Cohn, Berlin, Germany.
695,377. Hernial Truss. Joseph A. Corbett, Medford, Okla.
695,198. Insolubie casein and producing same. Henry V. Dunham, New York City.
694,971. Rectal instrument. Samuel L. Kistler, Los Angeles, Cal.
695,167. Combination liquid measure and sterilizer. J. C. F. McGriff, San Jose, Cal.
695,356. Medicine applicator. Burton A. Washburn, Wickliffe, Ky.
695,254. Pancreas preparation and producing same. Wilhelm Weber, Stolberg II, Germany.

The Public Service.

Army Changes.

Movements of Army Medical Officers under orders from the Adjutant-General's Office, Washington, D. C., March 5 to 12, 1902, inclusive:

Frank C. Baker, lieutenant and asst.-surgeon, U. S. A., from duty in the Division of the Philippines, to take effect June 1, 1902, and

to report on arrival at San Francisco, Cal., to the Adjutant-General, U. S. A., Washington, D. C., for instructions.

Howard W. Beal, lieutenant and asst.-surgeon, U. S. A., from the Division of the Philippines to San Francisco, Cal., as Lieutenant Baker.

Jerome S. Chaffee, lieutenant and asst.-surgeon, U. S. A., former orders amended so as to direct him to report for duty at the Army and Navy General Hospital, Hot Springs, Ark., relieving Contract Surgeon William E. Musgrave.

August von Clossman, contract surgeon, from duty as attending surgeon and examiner of recruits at St. Louis, Mo., to duty at Jefferson Barracks, Mo.

Louis W. Crampton, major and surgeon, U. S. A., leave of absence from A. G. O. extended six days.

Joseph J. Curry, captain and asst.-surgeon, Vols., now at Fort Bayard, N. M., is by reason of physical disability honorably discharged from the service of the United States, to take effect March 14, 1902.

Carl R. Darnall, captain and asst.-surgeon, U. S. A., from the Division of the Philippines to San Francisco, Cal., as Lieutenant Baker.

Edwin F. Gardner, major and surgeon, U. S. A., from the Division of the Philippines to San Francisco, Cal., as Lieutenant Baker.

Harry M. Hallock, captain and asst.-surgeon, U. S. A., member of an Army retiring board at Manila, P. I., relieving Major Walter D. McCaw, surgeon, U. S. A.

Louis T. Hess, lieutenant and asst.-surgeon, U. S. A., previous orders of Feb. 19, 1902, revoked.

Alva R. Hull, contract surgeon, from Jefferson Barracks, Mo., to duty at Fort Logan, Colo.

Charles Lynch, major and surgeon, Vols. (captain and asst.-surgeon, U. S. A.), member of an Army retiring board at Manila, P. I., relieving Major R. W. Johnson, surgeon, U. S. A.

Wharton B. McLaughlin, captain and asst.-surgeon, Vols., having tendered his resignation, is honorably discharged from the service of the United States.

William E. Musgrave, contract surgeon, on being relieved by Lieutenant Chaffee, asst.-surgeon, U. S. A., is granted leave of absence for one month, on the expiration of which he will proceed to San Francisco, Cal., en route for assignment in the Division of the Philippines.

Thomas L. Rhoads, lieutenant and asst.-surgeon, U. S. A., from the Division of the Philippines to San Francisco, Cal., as Lieutenant Baker.

Edward P. Rockhill, lieutenant and asst.-surgeon, U. S. A., from the Division of the Philippines to San Francisco, Cal., as Lieutenant Baker.

Edward A. Romig, captain and asst.-surgeon, Vols., now at Big Rapids, Mich., to proceed to San Francisco, Cal., en route to the Division of the Philippines for assignment.

George A. Skinner, captain and asst.-surgeon, U. S. A., from the Division of the Philippines to San Francisco, Cal., as Lieutenant Baker.

John H. Stone, captain and asst.-surgeon, U. S. A., on his arrival in the United States to report for duty at Washington Barracks, D. C.

Henry S. Turrill, major and surgeon, U. S. A., from the Division of the Philippines to San Francisco, Cal., as Lieutenant Baker.

William E. Vose, lieutenant and asst.-surgeon, U. S. A., from the Division of the Philippines to San Francisco, Cal., as Lieutenant Baker.

Egerton C. Wilson, contract surgeon, now at Owosso, Mich., to San Francisco, Cal., en route for assignment in the Division of the Philippines.

Navy Changes.

Changes in the Medical Corps of the Navy, week ended March 15:

Surgeon L. W. Spratling, detached from the Naval Recruiting Station, Buffalo, N. Y., and ordered to the Naval Hospital, Portsmouth, N. H.

Surgeon O. D. Norton, ordered to the *Richmond* as relief of Surgeon E. H. Marsteller.

Surgeon E. H. Marsteller, detached from the *Richmond* and ordered to the *Lancaster*.

Surgeon E. S. Bogert, Jr., detached from the *Lancaster*, and ordered to Buffalo, N. Y., for duty at the Naval and Marine Recruiting Rendezvous.

P. A. Surgeon J. C. Pryor, detached from the Naval Hospital, Newport, R. I., and to hold himself in readiness for duty on the *Massachusetts*.

P. A. Surgeon R. R. Ward, detached from the *Constellation*, and ordered to the Navy Yard, Boston, Mass.

Asst.-Surgeon A. M. Fauntleroy, detached from the Naval Hospital, Portsmouth, N. H., and ordered to the *Illinois*.

Asst.-Surgeon P. E. McDonnold, detached from the Naval Academy, and ordered to the *Olympia*.

Asst.-Surgeon C. M. Oman, detached from the Naval Hospital, New York, and ordered to the *Constellation*.

Asst.-Surgeon W. E. Griffin, ordered to the Naval Hospital, Newport, R. I.

Asst.-Surgeon H. A. Dunn, detached from the *Frolic*, and ordered to duty with the Marine Brigade.

Asst.-Surgeon J. M. Brister, detached from duty with the Marine Brigade and ordered to the *Frolic*.

Asst.-Surgeon U. R. Webb, detached from the *Kentucky* and ordered to the Iris.

P. A. Surgeon E. V. Armstrong, detached from the *Olympia*, and ordered to Washington, D. C., and home to wait orders.

Marine-Hospital Changes.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the U. S. Marine-Hospital Service for the seven days ended March 13, 1902:

P. A. Surgeon J. B. Stoner, to proceed to Cape Charles Quarantine and assume temporary charge of the station during the absence on leave of Asst.-Surgeon C. W. Wille.

Asst.-Surgeon W. C. Hobdy, to proceed to Savannah Quarantine and assume temporary charge of the station during the absence on leave of A. A. Surgeon W. J. Linley.

Asst.-Surgeon W. C. Billings, to proceed to Ludington, Mich., for special temporary duty. Relieved from duty at Chicago, and directed to proceed to New York, and report to Surgeon G. W. Stoner for duty.

Asst.-Surgeon Dunlop Moore, relieved from duty at Honolulu, and directed to proceed to Yokohama, Japan, for duty in the office of the U. S. Consul-General.

Asst.-Surgeon C. W. Wille, granted leave of absence for ten days from March 21.

Asst.-Surgeon J. S. Boggess, to proceed to Delaware Breakwater, Del., and assume temporary charge of the station during the absence of Asst.-Surgeon C. H. Lavinder.

A. A. Surgeon H. S. Caminero, granted leave of absence for thirty days from March 5.

A. A. Surgeon J. S. Hough, relieved from duty at Yokohama, Japan, and directed to proceed to Hongkong, China, and report to Asst.-Surgeon J. W. Kerr for duty in the office of the U. S. Consul-General.

A. A. Surgeon W. J. Linley, granted leave of absence for nine days from March 15.

Junior Pharmacist J. E. Beck, upon being relieved by Junior Pharmacist G. A. Morris, to proceed to Mobile, Ala., and report to Medical Officer in Command for duty and assignment to quarters.

Junior Pharmacist G. A. Morris, relieved from duty at Havana, Cuba, and directed to proceed to Fort Stanton, N. M., and report to medical officer in command for duty and assignment to quarters, relieving Junior Pharmacist J. E. Beck.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, U. S. Marine-Hospital Service, during the week ended March 15, 1902:

SMALLPOX—UNITED STATES.

California: Sacramento, Feb. 22-March 1, 1 case; San Francisco, Feb. 23-March 2, 4 cases.
Colorado: Denver, Feb. 24-March 3, 4 cases.
District of Columbia: Washington, March 1-8, 3 cases.
Illinois: March 1-8, Belleville, 4 cases; Chicago, 19 cases.
Indiana: Crawfordsville, March 1-8, 17 cases; Evansville, 8 cases; Indianapolis, Feb. 22-March 8, 31 cases; Terre Haute, March 1-8, 1 case.
Iowa: Ottumwa, Feb. 1-March 1, 42 cases.
Kentucky: Covington, March 2-9, 9 cases; Lexington, March 1-8, 4 cases.
Maine: Portland, March 1-8, 9 cases, 1 death.
Massachusetts: March 1-8, Boston, 17 cases, 6 deaths; Cambridge, 4 cases, 1 death; Chicopee, 1 case; Lawrence, 3 cases, 1 death; Malden, 1 case; New Bedford, 1 case; Quincy, 1 death.
Michigan: March 1-8, Detroit, 3 cases; Ludington, 2 cases.
Minnesota: Minneapolis, Feb. 22-March 1, 16 cases; Winona, March 1-8, 4 cases.
Montana: Butte, Feb. 23-March 1, 2 cases, 1 death.
Nebraska: Omaha, March 1-8, 52 cases, 1 death.
New Jersey: Camden, March 1-8, 1 case; Harrison, March 2-9, 1 case; Hoboken, March 2-9, 2 cases; Jersey City, March 2-9, 46 cases, 1 death; Kearney, March 2-9, 3 cases; Newark, March 1-8, 22 cases, 3 deaths; Union, March 2-9, 1 case; West Hoboken, March 2-9, 3 cases.
New York: March 1-8, Binghamton, 1 death; New York, 60 cases, 10 deaths.
Ohio: Chillicothe, Feb. 22-March 1, 1 case; Cincinnati, Feb. 28-March 7, 15 cases.
Pennsylvania: Philadelphia, March 1-8, 47 cases, 11 deaths.
Rhode Island: Providence, March 1-8, 3 cases.
South Carolina: Charleston, March 1-8, 2 cases.
South Dakota: Sioux Falls, Feb. 22-March 8, 15 cases.
Tennessee: Memphis, March 1-8, 4 cases.
Texas: Houston, March 1-8, 12 cases.
Utah: Salt Lake City, Feb. 22-March 8, 6 cases.
Washington: Tacoma, Feb. 23-March 2, 5 cases.
Wisconsin: Green Bay, March 2-9, 11 cases.

SMALLPOX—FOREIGN.

Belgium: Antwerp, Feb. 8-15, 4 cases, 3 deaths; Ghent, Feb. 1-22, 6 deaths.
Brazil: Rio de Janeiro, Jan. 18-Feb. 9, 33 deaths.
Canada: Halifax, Feb. 22-March 8, 3 cases; Quebec, Feb. 8-March 8, 121 cases, 2 deaths; Winnipeg, Feb. 15-March 1, 7 cases.
Colombia: Cartagena, Feb. 17-23, 1 death.
Cuba: Guantanamo, Feb. 27, 1 case.
England: Birmingham, Feb. 15-22, 1 case; Liverpool, Feb. 15-22, 14 cases; London, Feb. 8-15, 64 deaths; Manchester, Feb. 15-22, 1 case; Southampton, Feb. 15-22, 1 case.
France: Marseilles, Jan. 1-31, 1 death; Paris, Feb. 15-22, 3 deaths.
Gibraltar: Feb. 9-16, 1 case.
India: Bombay, Feb. 4-11, 11 deaths; Madras, Feb. 1-7, 2 deaths.
Italy: Baselice, Feb. 17, 176 cases; Naples, Feb. 8-22, 20 cases; Palermo, Feb. 1-22, 35 cases, 6 deaths.
Malta, Feb. 8-15, 1 case.
Mexico: Mexico, Feb. 23-March 2, 2 cases, 1 death.
Scotland: Glasgow, Feb. 15-28, 8 deaths.

YELLOW FEVER.

Brazil: Rio de Janeiro, Jan. 19-Feb. 9, 24 deaths.
Mexico: Vera Cruz, Feb. 22-March 1, 1 case.

CHOLERA.

China: Canton, March 6, increasing; 2 deaths among Europeans.
India: Bombay, Feb. 4-11, 4 deaths; Calcutta, Feb. 1-8, 50 deaths; Madras, Feb. 1-7, 4 deaths.
Straits Settlements: Singapore, Jan. 11-18, 5 deaths.

PLAGUE—INSULAR.

Hawaii: Honolulu, Feb. 26-March 2, 3 deaths.

PLAGUE—FOREIGN.

Brazil: Rio de Janeiro, Jan. 18, 11 deaths.
China: Shui Tung, Jan. 23, 100 deaths.
India: Bombay, Feb. 4-11, 531 deaths; Calcutta, Feb. 1-8, 124 deaths.